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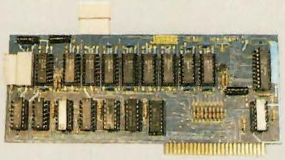
SALE! JAMECO's APPLE™ Compatible Products SALE!

Made in the U.S.A.!

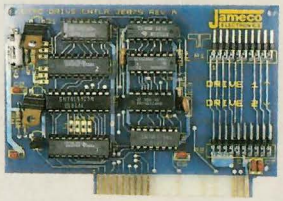
16K RAM Card* (Language Card)
For Apple II and II+



The **JE860** RAM Card allows the Apple II and II+ computers to expand from 48K to 64K. Fully compatible to Microsoft Softcard. Runs AppleSoft, DOS, CP/M and Pascal. Complete with instructions.

JE860. . . . . $39.95

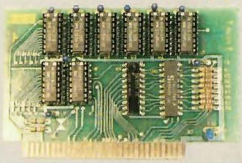
Controller Card
For Apple II, II+ & *IIe*



The **JE875** is a standard Apple Controller Card capable of handling up to two drives. Easy to install. Recommended drives: ADD-514 or ADD-12. Complete with instructions.

JE875. . . . . $49.95

Extended 80-Column Card for Apple *IIe*



The **JE864** is an extended 80-column/64K RAM Card. This effectively doubles the amount of data that your Apple *IIe* can display as well as its memory capacity.
Uses: Word processing — displays 1000 more characters per screen • Extra memory allows running of extremely large programs • Ultra High Resolution Graphics capability (Revision B only) • Complete with instructions.

JE864. . . . . ~~$69.95~~ $59.95

128K RAM Card* For Apple II, II+ and *IIe*

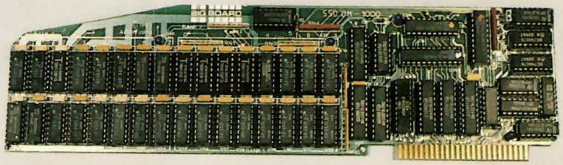
The **JE868** is functionally compatible with the Apple II language card and can be utilized with most software as a 128K card. The JE868 requires no modifications to your Apple computer. Four key software programs are included: utilities, diagnostics, demos, and RAM disk emulators for DOS 3.3, CP/M and Apple Pascal. Complete with instructions.

JE868 (Expand-A-RAM). . . . . ~~$119.95~~ $99.95

1MByte RAM Card for Apple II, II+ and *IIe*

- **RAMDISK Software!**
- **Expand your Appleworks™ Desktop to 1024K using PLUS-WORKS™ Software!**
- **User Selectable Bank-Switch or Byte Addressing Mode!**
- **Software Selectable Addressing Mode!**

BIG BOARD

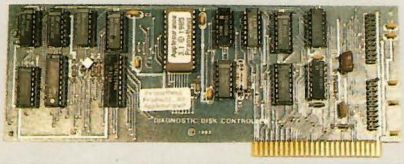


BIG BOARD comes complete with RAMDISK software for DOS 3.3, ProDOS, Pascal 1.2, and CP/M for Microsoft's Softcard. Separate driver (below) for AppliCard (StarCard). Choice of active addressing mode via a jumper on the BIG BOARD or through software commands. Byte addressing mode has no conflicts with use of the standard language card or *IIe* auxilliary slot memory card, while the bank switched addressing mode shares the language card area. Manual included.

BIG BOARD-256K 256K RAM. $199.95
BIG BOARD-512K 512K RAM. $249.95
BIG BOARD-1M 1Meg RAM. $299.95

SUPPORT SOFTWARE for the JE868 and BIG BOARDS

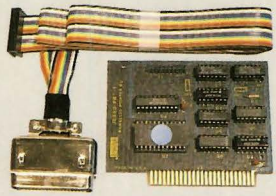
Applicard™ Software Supports the PCPI Applicard (StarCard) for Big Boards. **$39.95**
PLUS-WORKS XM™ Software Supports Appleworks (Apple II and II+) for BIG BOARDS and JE868. . . . . **$49.95**
PLUS-WORKS XME™ Software Supports Appleworks (Apple *IIe*) for BIG BOARDS and JE868. . . . . **$49.95**



Applesurance Diagnostic Disk Controller Card For Apple II, II+ and *IIe*

The **JE877** serves as a diagnostic tool, an assurance/maintenance tool and a dual disk drive controller. The JE877 will verify and check the operating hardware of your system each time you turn on your Apple II, II+ or *IIe*.* Test your RAM, ROM, CPU, and disk drives. Diagnostic routines may be cancelled at the touch of a key. Complete with instructions. NOTE: Not compatible with Enhanced Apple *IIe*.

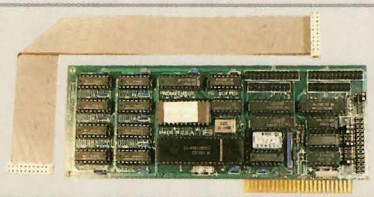
JE877. . . . . ~~$69.95~~ $59.95



Parallel Printer Card For Apple II, II+ and *IIe*

The **JE880** Printer Interface board is an intelligent interface to most of today's popular dot-matrix graphics printers. The JE880 is fully compatible with Apple CP/M, Apple Pascal (or FORTRAN), and most other operating systems and software packages available for Apple II, II+ and *IIe*. The JE880 is shipped configured for the Centronics standard. Advanced text printing features include: video screen echo ON or OFF, auto/disable linefeed after carriage return, set/clear the 8th bit of the output data, set left margin and more! Complete with instructions.

JE880. . . . . ~~$59.95~~ $49.95



Parallel/Serial Buffer Card For Apple II, II+ & *IIe*

The **JE883** provides the user with up to 64K of additional or buffered memory (18 pages of information). Using the parallel jumper cable supplied, the JE883 will attach to the JE880 (above). Parallel Card needed for operation. The JE883 includes a standard parallel input with both parallel and serial (RS232) buffered outputs. With these features you may access and buffer information to two types of printers (one serial, one parallel). Complete with instructions.

JE883. . . . . ~~$79.95~~ $69.95

*When using CP/M, the JE860 and JE868 will only function with Version 2.20 or earlier; PASCAL (JE860/JE868) Version 1.1 or earlier.

INDEX

COVER CREDITS: *L. K. OON* and *LARRY TUNG* — Eighty electronic components and 400 man-hours went into Artist L.K. Oon's air-brush rendition of the Skyline of San Francisco.

MANUFACTURER'S LOGOS

LOGO	MANUFACTURER/ADDRESS
AM	**Advanced Micro Devices** 925 Thompson Place Sunnyvale, CA 94086 (408) 732-2400
GOULD AMI	**Gould-AMI Semiconductors** 3800 Homestead Road Santa Clara, CA 95051 (408) 246-0330
ANALOG DEVICES	**Analog Devices** Two Technology Way Norwood, MA 02062 (617) 329-4700
ANALOGIC	**Analogic Corporation** 8 Centennial Drive Peabody, MA 01961 (617) 532-5660
BECKMAN	**Beckman Instruments** 2500 Harbor Boulevard Fullerton, CA 92634 (714) 871-4848
BURR-BROWN	**Burr-Brown** P.O. Box 11400 Tucson, AZ 85734 (602) 746-1111
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	Hybrid Systems 22 Linnell Circle Billerica, MA 01821 (617) 667-8700
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	Lambda Semiconductor 121 International Drive Corpus Christi, TX 78410 (800) 255-9606
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	Motorola 5005 E. McDowell Road Phoenix, AZ 85008 (602) 244-6900
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	Solitron Devices, Inc. 8808 Balboa Avenue San Diego, CA 92123 (619) 278-8780
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	Teledyne Semiconductor 1300 Terra Bella Avenue Mountain View, CA 94043 (415) 968-9241
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	Western Digital 2445 McCabe Way Irvine, CA 92714 (714) 863-0102
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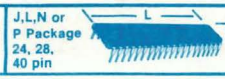
Zilog	**Zilog, Inc.** 1315 Dell Avenue Campbell, CA 95008 (408) 370-8000

TRANSISTOR TRANSISTOR LOGIC 7400 SERIES TRANSISTOR TRANSISTOR LOGIC

Part No.	Pins	Function	1-9	10+
7400	14	Quad 2-Input NAND Gate	.29	.19
7401	14	Quad 2-Input NAND Gate (Open Collector)	.29	.19
7402	14	Quad 2-Input NOR Gate	.29	.19
7403	14	Quad 2-Input NAND Gate (Open Collector)	.29	.19
7404	14	Hex Inverter (9016)	.35	.25
7405	14	Hex Inverter (Open Collector)	.39	.29
7406	14	Hex Inverter Buffer/Driver (O.C. Hi-Voltage)	.39	.29
7407	14	Hex Buffer/Driver (O.C. Hi-Voltage)	.39	.29
7408	14	Quad 2-Input AND Gate	.35	.25
7409	14	Quad 2-Input AND Gate (Open Collector)	.39	.29
7410	14	Triple 3-Input NAND Gate	.35	.25
7411	14	Triple 3-Input AND Gate	.59	.49
7412	14	Triple 3-Input NAND (O.C.)	.59	.49
7413	14	Dual 4-Input Schmitt Trigger	.59	.49
7414	14	Hex Schmitt Trigger Inverter	.49	.39
7416	14	Hex Inverter Buffer/Driver (O.C. Hi-Voltage)	.45	.35
7417	14	Hex Buffer/Driver (O.C. Hi-Voltage)	.45	.35
7420	14	Dual 4-Input NAND Gate	.35	.25
7421	14	Dual 4-Input Positive AND Gate	.59	.49
7422	14	Dual 4-Input NAND Gate (O.C.)	.59	.49
7423	16	Expandable Dual 4-Input NOR Gate	.59	.49
7425	14	Dual 4-Input NOR Gate	.49	.39
7426	14	Quad 2-Input TTL/MOS Inter. Gate	.39	.29
7427	14	Triple 3-Input NOR Gate	.39	.29
7428	14	Quad 2-Input NOR Buffer	.59	.49
7430	14	8-Input NAND Gate	.35	.25
7432	14	Quad 2-Input OR Gate	.39	.29
7433	14	Quad 2-Input NOR Buffer	.59	.49
7437	14	Quad 2-Input NAND Buffer	.39	.29
7438	14	Quad 2-Input NAND Buffer (Open Collector)	.39	.29
7439	14	Quad 2-Input NAND Buffer (Open Collector)	.79	.69
7440	14	Dual 4-Input NAND Buffer	.39	.29
7441	16	BCD-to-Decimal Decoder/Nixie TM Driver	.99	.89
7442	16	BCD-to-Decimal Decoder	.55	.45
7443	16	Excess 3-to-Decimal	1.29	1.19
7444	16	Excess 3-Gray-to-Decimal	1.29	1.19
7445	16	BCD-to-Decimal Decoder/Driver	.79	.69
7446	16	BCD-to-7 Segment Decoder/Driver (30V out)	.89	.79
7447	16	BCD-to-7 Segment Decoder/Driver (15V out)	.89	.79
7448	16	BCD-to-7 Segment Decoder/Driver	2.05	1.95
7450	14	Expan. Dual 2-Wide 2-In. AND/OR/Invert Gate	.45	.35
7451	14	Dual 2-Wide 2-In. AND/OR/Invert Gate	.55	.45
7453	14	Expan. 4-Wide 2-In. AND/OR/Invert Gate	.55	.45
7454	14	4-Wide 2-In. AND/OR/Invert Gate	.55	.45
7459	14	Dual 2-Wide 2-3-Input AND/OR/Invert Gate	.79	.69
7460	14	Dual 4-Input Expander	.55	.45
7470	14	Edge-Triggered JK Flip Flop	.75	.65
7472	14	JK Master/Slave Flip Flop	.75	.65
7473	14	Dual JK Master/Slave Flip Flop (DM8501)	.45	.35
7474	14	Dual D Flip Flop	.45	.35
7475	16	4-Bit Bistable Latch	.49	.39
7476	16	Dual JK Master/Slave Flip Flop	.45	.35
7479	14	Dual D Flip Flop	5.05	4.95
7480	14	Gated Full Adder	.89	.79
7482	14	2-Bit Full Adder	1.59	1.49
7483	16	4-Bit Binary Full Adder	.79	.69
7485	16	4-Bit Magnitude Comparator	.65	.55
7486	14	Quad 2-Input EXCLUSIVE-OR Gate	.45	.35
7489	16	64-Bit RAM (3101)	2.05	1.95
7490	14	Decade Counter	.49	.39
7491	14	8-Bit Shift Register	.99	.89
7492	14	Divide-by-12 Counter	.65	.55
7493	14	4-Bit Binary Counter	.45	.35
7494	14	4-Bit Shift Register (Parallel-IN, Serial-OUT)	1.09	.99
7495	14	4-Bit Right Shift/Left Shift Register	.59	.49
7496	16	5-Bit Parallel-IN, Parallel-OUT Shift Register	.95	.85
7497	16	Synchronous 6-Bit Binary Rate Multipliers	2.79	2.69
74100	24	Dual 4-Bit Bistable Latch	3.05	2.95
74104	14	Gated J-K Master/Slave Flip Flop	1.09	.99
74105	14	Gated J-K Master/Slave Flip Flop	1.09	.99
74107	14	Dual J-K Master/Slave Flip Flop	.39	.29
74109	16	Dual J-K Pos-Edge Triggered F-F (9024)	.49	.39
74116	24	Dual 4-Bit Latches w/Clear (9308)	2.05	1.95
74120	16	Dual Pulse Synchronizer	1.79	1.69
74121	14	Monostable Multivibrator	.45	.35
74122	14	Retriggerable Mono. Multivibrator w/Clear	.75	.65
74123	16	Dual Retriggerable Monostable Multivibrator	.59	.49
74125	14	Tri-State Quad Bus Buffer (DM8093)	.55	.45
74126	14	Tri-State Quad Bus Buffer (DM8094)	.75	.65
74128	14	Quad 2-Input NOR Buffer	.79	.69
74132	14	Quad Schmitt Trigger	.59	.49
74136	14	Quad 2-Input Exclusive-OR Gate	.95	.85
74141	16	BCD-to-Decimal Decoder/Driver	1.05	.95
74142	16	BCD Counter-Latch-Driver	3.59	3.49
74143	24	4-Bit Counter/Latch	4.05	3.95
74144	24	7-Segment LED/Lamp Driver	3.05	2.95
74145	16	BCD-to-Decimal Decoder/Driver	.75	.65
74147	16	10/4 Priority Encoder	1.79	1.69
74148	16	Priority Encoder (9318)	.89	.79
74150	24	16-Line to 1-Line Multiplexer	1.35	1.25
74151	16	8-Channel Digital Multiplexer	.55	.45
74152	14	8-Channel Data Selector/Multiplexer	.99	.89
74153	16	Dual 4/1 Multiplexer	.55	.45
74154	24	4- to 16-Line Decoder/Demultiplexer (9311)	1.35	1.25
74155	16	Dual 2/4 Demultiplexer	.55	.45
74156	16	Dual 2/4 Demultiplexer (O.C.)	.89	.79
74157	16	Quad 2/1 Data Selector (9322)	.59	.49
74158	16	Quad 2/1 Multiplexer (Inv. Out)	1.59	1.49
74159	16	4- to 16-Line Decoder/Demultiplexer	1.75	1.65
74160	16	Decade Counter with Asynchronous Clear	.89	.79
74161	16	Synchronous 4-Bit Counter (9316)	.69	.59
74162	16	Presettable Decade Counter w/Clear	1.59	1.49
74163	16	Synchronous 4-Bit Counter	.69	.59
74164	14	8-Bit Serial Shift Register (DM8570)	.69	.59
74165	16	Parallel Load 8-Bit Serial Shift Reg. (DM8590)	.99	.89
74166	16	8-Bit Shift Register	.79	.69
74167	16	Rate Multiplier	3.39	3.29
74170	16	4x4 Register File	2.05	1.95
74172	24	Register File	5.05	4.95
74173	16	4-Bit Tri-State Register (DM8551)	.85	.75
74174	16	Hex D Flip Flop with Clear	.65	.55
74175	16	Quad D Flip Flop with Clear	.65	.55
74176	14	35MHz Presettable Decade Counter (N8280)	.99	.89
74177	14	35MHz Presettable Binary Counter (N8281)	1.09	.99
74179	16	4-Bit Parallel-Access Shift Register	1.59	1.49
74180	14	8-Bit Odd/Even Parity Generator/Checker	.79	.69
74181	24	Arithmetic Logic Unit	1.95	1.85
74182	16	Look-Ahead Carry Generator (9342)	1.09	.99
74184	16	BCD-to-Binary Converter	2.05	1.95
74185	16	Binary-to-BCD Converter	2.79	2.69
74189	16	Tri-State 64-Bit RAM (DM8599)	2.05	1.95
74190	16	Up/Down Decade Counter	.99	.89
74191	16	Synchronous Binary Up/Down Counter	.79	.69
74192	16	Decade Up/Down Counter (DM8560)	.89	.79
74193	16	Binary Up/Down Counter (DM8563)	.79	.69
74194	16	4-Bit Bi-Directional Shift Register	.79	.69
74195	16	4-Bit Parallel-Access Shift Register (DM8300)	.89	.79
74196	14	Presettable Decade Counter (N8290)	1.09	.99
74197	14	Presettable Binary Counter (N8291)	.99	.89
74198	24	8-Bit Shift Register	1.85	1.75
74199	24	8-Bit Shift Register	1.59	1.49
74221	16	Dual One-Shot-Schmitt Trigger	.99	.89
74247	16	BCD-to-7 Segment Decoder/Driver	3.05	2.95
74251	16	Tri-State 8-Channel Multiplexer (DM8121N)	1.25	1.15
74259	16	8-Bit Addressable Latch (9334)	2.05	1.95
74265	16	Quad Complementary-Output Elements	1.09	.99
74273	20	Octal D-Type Flip Flop with Clear	2.05	1.95
74276	20	Quad J-K Flip Flop	2.59	2.49
74278	14	4-Bit Cascadable Priority Register	3.05	2.95
74279	16	Quad Debouncer	.89	.79
74283	16	4-Bit Binary Full Address with Fast Carry	1.29	1.19
74284	16	Tri-State 4-Bit Multiplexer	2.59	2.49
74285	16	Tri-State 4-Bit Multiplexer	2.59	2.49
74298	16	Quad 2-Input Multiplexer w/Storage	1.39	1.29
74365	16	Tri-State Hex Buffer (DM8095)	.69	.59
74366	16	Tri-State Hex Buffer Inverter (DM8096)	.75	.65
74367	16	Tri-State Hex Buffer (DM8097)	.69	.59
74368	16	Tri-State Hex Buffer Inverter (DM8098)	.69	.59
74390	16	Dual 4-Bit Decade Counter	1.59	1.49
74393	14	Dual 4-Bit Binary Counter w/Individual Clocks	1.59	1.49

– DUAL IN-LINE PACKAGES AS PER NATIONAL SEMICONDUCTOR'S SPECIFICATIONS –

14-.770L
16-.870L
18-.870L
20-1.04L



FAST 74F00 SERIES FAST

Part No.	Pins	Function	Price
74F00	14	Quad 2-Input NAND Gate	$ .39
74F02	14	Quad 2-Input NOR Gate	.39
74F04	14	Hex Inverter	.39
74F08	14	Quad 2-Input AND Gate	.39
74F10	14	Triple 3-Input NAND Gate	.39
74F20	14	Dual 4-Input NAND Gate	.45
74F32	14	Quad 2-Input OR Gate	.39
74F74	14	Dual D Flip-Flop	.49
74F86	14	Quad Exclusive OR Gate	.59
74F109	16	Dual JK Positive Edge Flip-Flop	.65
74F138	16	Expandable 3/8 Decoder	.89
74F139	16	Expandable 2/4 Decoder	.89
74F151	16	8-Channel Digital Multiplexer	.99
74F157	16	Quad 2-Input Multiplexer	.95
74F158	16	Quad 2-Input Multiplexer (Inverted)	$ .95
74F174	16	Hex D Flip-Flop with Clear	1.49
74F175	16	Quad D Flip-Flop	1.49
74F193	16	4-Bit Up/Down Binary Counter	3.95
74F240	20	Tri-State Octal Line Driver (Inverting)	1.39
74F241	20	Tri-State Octal Line Driver (Non-Inverting)	1.39
74F244	20	Tri-State Octal Line Driver	1.39
74F245	20	Octal Bus Transceiver Non-Inverting	3.95
74F251	16	Tri-State 8-Channel Multiplexer	.95
74F253	16	Tri-State Dual 4-Input Multiplexer	.99
74F257	16	Tri-State Quad 2-Input Multiplexer	.99
74F373	20	Tri-State Octal Latch	1.39
74F374	20	Tri-State Octal D Flip-Flop	1.39
74F379	16	4-Bit Register, Common Enable	.69

HIGH SPEED 74H00 SERIES HIGH SPEED

74H00	14	Quad 2-Input NAND Gate	$ .59
74H01	14	Quad 2-Input NAND Gate	.99
74H04	14	Hex Inverter	.69
74H05	14	Hex Inverter (Open Collector)	.69
74H08	14	Quad 2-Input AND Gate	.99
74H10	14	Triple 3-Input NAND Gate	.59
74H11	14	3-Input Positive AND Gate	.59
74H20	14	Dual 4-Input NAND Gate	.69
74H21	14	Dual 4-Input AND Gate	.99
74H22	14	4-Input Positive NAND Gate	.59
74H40	14	Dual 4-Input Buffer	.59
74H50	14	Expand. Dual 2-Wide 2-In. AND/OR/Inv. Gate	.59
74H51	14	Dual 2-Wide 2-In. AND/OR/Invert Gate	.59
74H52	14	Expandable 4-Wide AND/OR Gate	$ .59
74H54	14	4-Wide 2-Input AND/OR/Invert Gate	.59
74H55	14	2-Wide 4-Input AND/OR/Invert Gate	.59
74H60	14	Dual 4-Input Expander	.59
74H61	14	Triple 3-Input Expander	.59
74H62	14	4-Wide AND/OR Expander	.59
74H71	14	R-S Flip-Flop	.59
74H72	14	JK Master/Slave Flip-Flop	.99
74H73	14	Dual JK Master/Slave Flip-Flop	.69
74H74	14	Dual D Flip-Flop	.99
74H76	16	Dual JK Master/Slave Flip-Flop	.99
74H78	14	Dual JK Flip-Flop with Preset	.99
74H103	14	Dual JK Negative Edge Triggered Flip-Flop	.99

LOW POWER 74L00 SERIES LOW POWER

74L00	14	Quad 2-Input NAND Gate	$ .69
74L03	14	Quad 2-Input Gate (Open Collector)	.69
74L04	14	Hex Inverter	.89
74L05	14	Hex Inverter (Open Collector)	.89
74L06	14	Hex Inverter Buffer/Driver (O.C. Hi-Volt.)	.99
74L08	14	Quad 2-Input AND Gate	.99
74L10	14	Triple 3-Input NAND Gate	.89
74L20	14	Dual 4-Input NAND Gate	.89
74L30	14	8-Input NAND Gate	.89
74L32	14	Quad 2-Input Positive OR Gate	.99
74L42	16	BCD-to-Decimal Decoder	1.95
74L54	14	4-Wide 2-In. AND/OR/Invert Gate	.99
74L72	14	JK Master/Slave Flip-Flop	1.25
74L73	14	Dual JK Master/Slave Flip-Flop	1.25
74L74	14	Dual D Flip-Flop	$1.25
74L85	16	4-Bit Magnitude Comparator	6.95
74L86	14	Quad Exclusive-OR Gate	.99
74L91	14	8-Bit Shift Register	2.49
74L95	14	4-Bit Right Shift/Left Shift Register	2.49
74L98	16	4-Bit Storage Register	2.49
74L123	16	TTL/Monostable Multivibrator	1.49
74L153	16	Dual 4-Input Multiplexer	.99
74L154	24	4-Line to 16-Line Decoder/Demultiplexer	1.95
74L164	14	8-Bit Serial Shift Register	2.65
74L165	16	Parallel Load 8-Bit Serial Shift Register	3.49
74L192	16	BCD Up/Down Counter	2.95
74L193	16	4-Bit Binary Up/Down Counter	2.95
74L195	16	4-Bit Parallel-Access Shift Register	1.95

SCHOTTKY 74S00 SERIES SCHOTTKY

74S00	14	Quad 2-Input NAND Gate	$ .29
74S02	14	Quad 2-Input NOR Gate	.29
74S03	14	Quad 2-Input NAND Gate (Open Collector)	.29
74S04	14	Hex Inverter	.35
74S05	14	Hex Inverter (Open Collector)	.29
74S08	14	Quad 2-Input AND Gate	.35
74S09	14	Quad 2-Input AND Gate (Open Collector)	.35
74S10	14	Triple 3-Input NAND Gate	.29
74S11	14	Triple 3-Input AND Gate	.35
74S15	14	Triple 3-Input AND Gate (Open Collector)	.49
74S20	14	Dual 4-Input NAND Gate	.35
74S22	14	Dual 4-Input NAND Gate (Open Collector)	.59
74S30	14	8-Input NAND Gate	.29
74S32	14	Quad 2-Input OR Gate	.35
74S37	14	Quad 2-Input NAND Buffer	.89
74S38	14	Quad 2-Input NAND Buffer (Open Collector)	.89
74S40	14	Dual 4-Input NAND Buffer	.29
74S51	14	Dual 2-Input AND-OR-Invert Gate	.35
74S64	14	AND-OR-Invert Gate	.35
74S65	14	AND-OR-Invert Gate (Open Collector)	.69
74S74	14	Dual D Flip-Flop	.45
74S85	16	4-Bit Magnitude Comparator	1.79
74S86	14	Quad Exclusive OR Gate	.35
74S112	16	Dual JK Flip-Flop	.49
74S113	14	Dual JK Flip-Flop (Preset)	.49
74S114	14	Dual JK F-F with Preset, Comm., Clk., Clr.	.65
74S124	16	Dual Voltage-Controlled Oscillators	2.95
74S132	14	Quad Schmitt Trigger	.99
74S133	16	13-Input NAND Gate	.39
74S134	16	Tri-State 12-Input NAND Gate	.59
74S135	16	Quad Exclusive OR/NOR Gate	.99
74S136	14	Quad Exclusive OR Gate	1.39
74S138	16	Expandable 3/8 Decoder	.79
74S139	16	Expandable 2/4 Decoder	.79
74S140	14	Dual 4-Input NAND Driver	.49
74S151	16	8-Input Multiplexer	.79
74S153	16	Dual 4/1 Multiplexer	.79
74S157	16	Quad 2-Input Multiplexer	.79
74S158	16	Quad 2-Input Multiplexer (Inverted)	.79
74S160	16	Decade Counter with Asynchronous Clear	3.95
74S161	16	Presettable Binary Counter	1.95
74S163	16	Synchronous 4-Bit Counter	1.95
74S169	16	Synchronous 4-Bit Up/Down Binary Counter	3.95
74S172	24	16-Bit Multiple Port Register File (3-State)	6.95
74S174	16	Hex D Flip-Flop	.79
74S175	16	Quad D Flip-Flop	$ .79
74S181	24	Arithmetic Logic Unit	2.95
74S182	16	Look-Ahead Carry Generators	1.49
• 74S188*	16	256-Bit (32x8) PROM (Open Collector)	1.29
• 74S189	16	64-Bit (16x4) RAM Tri-State	1.69
74S194	16	4-Bit Bi-Directional Shift Register	1.29
74S195	16	4-Bit Parallel Shift Register (93S00)	1.29
74S196	14	Presettable Decade Counter (82S90)	2.49
74S201	16	256-Bit (256x1) RAM Tri-State	.59
74S240	20	Tri-State Octal Line Driver	1.49
74S241	20	Tri-State Octal Line Driver (Non-Inverting)	1.49
74S242	14	Quadruple Bus Transceiver	2.69
74S243	14	Quadruple Bus Transceiver	2.69
74S244	20	Tri-State Octal Line Driver	1.49
74S251	16	Tri-State 74S151	.79
74S253	16	Tri-State 74S153	.79
74S257	16	Tri-State 74S157	.79
74S258	16	Tri-State 74S158	.89
74S260	14	Dual 5-Input NOR Gate	.89
74S273	20	Octal D-Type Flip-Flop (Clear)	2.39
74S280	14	9-Bit Parity Generator	1.49
• 74S287*	16	1K-Bit (256x4) PROM Tri-State	1.49
• 74S288*	16	256-Bit (32x8) PROM Tri-State	1.49
• 74S289	16	64-Bit (16x4) RAM Open Collector	1.95
74S299	20	8-Bit Universal Shift/Storage Register	3.95
74S301	16	256-Bit (256x1) RAM (Open-Collector)	4.95
74S373	20	Octal D-Type Latch	1.49
74S374	20	Octal D Flip-Flop Tri-State	1.49
74S379	16	4-Bit Register, Common Enable	2.95
74S381	20	Arithmetic Logic Unit/Function Generator	4.95
• 74S387*	16	1K-Bit (256x4) PROM Open Collector	1.29
74S412	24	8-Bit Input/Output (New #DP8212)	1.49
74S428	28	System Controller/Bus Driver (New #DP8228)	2.49
• 74S471	20	2K-Bit (256x8) PROM Tri-State (New #TBP28L22N)	4.95
• 74S472*	20	4K-Bit (512x8) PROM Tri-State	2.95
• 74S473*	20	4K-Bit (512x8) PROM Open Collector	2.95
• 74S474*	24	4K-Bit (512x8) PROM Tri-State	2.95
• 74S475*	24	4K-Bit (512x8) PROM Open Collector	2.95
• 74S476*	18	4K-Bit (1024x4) PROM Tri-State (New #TBP24S41N)	5.95
74S482	20	4-Bit Slice Expand. Control Elements (Cascadable to N-Bits)	6.95
74S571*	16	2K-Bit (512x4) PROM Tri-State	2.49
74S573*	18	4K-Bit (1024x4) PROM Tri-State	2.95
74S940	20	Octal Buffer with Tri-State Outputs	1.95
74S941	20	Octal Buffer with Tri-State Outputs	1.95

• Bipolar *PROMs

Part No.	Pins	Function	1-9	10+
74LS00	14	Quad 2 NAND Gate	.29	.19
74LS01	14	Quad 2-Input NAND Gate	.29	.19
74LS02	14	Quad 2 NOR Gate	.29	.19
74LS03	14	Quad 2 NAND Gate	.29	.19
74LS04	14	Hex Inverter	.35	.25
74LS05	14	Hex Inverter (Open Collector)	.35	.25
74LS06	14	Hex Inverter Buffer/Driver (O.C. Hi-Volt.)	1.09	.99
74LS07	14	Hex Buffer/Driver (O.C. Hi-Volt.)	1.09	.99
74LS08	14	Quad 2-Input AND Gate	.29	.19
74LS09	14	Quad 2-Input AND Gate (Open Collector)	.29	.19
74LS10	14	Triple 3 NAND Gate	.29	.19
74LS11	14	Triple 3-Input AND Gate	.29	.19
74LS12	14	3-Input NAND Gate (Open Collector)	.29	.19
74LS13	14	Dual Schmitt Trigger	.49	.39
74LS14	14	Hex Schmitt Trigger	.49	.39
74LS15	14	Triple 3-Input AND Gate	.39	.29
74LS20	14	Dual 4-Input NAND Gate	.29	.19
74LS21	14	Dual 4-Input AND Gate	.35	.25
74LS22	14	Dual 4-Input NAND Gate (Open Collector)	.39	.29
74LS26	14	Quad 2-Input Interface Positive NAND Gate	.35	.25
74LS27	14	Triple 3 NOR Gate	.35	.25
74LS28	14	Quad 2-Input Positive NOR Buffer	.39	.29
74LS30	14	8-Input NAND Gate	.29	.19
74LS32	14	Quad 2-Input Positive OR Gate	.35	.25
74LS33	14	Quad 2-Input NOR Buffer (Open Collector)	.49	.39
74LS37	14	Quad 2-Input NAND Buffer	.39	.29
74LS38	14	Quad 2-Input NAND Buffer (Open Collector)	.39	.29
74LS40	14	Dual 4 NAND Buffer	.39	.29
74LS42	16	BCD-to-Decimal Decoder	.49	.39
74LS47	16	7-Segment Decoder/Driver	.99	.89
74LS48	16	BCD to 7-Segment Decoder/Driver	.99	.89
74LS49	14	BCD to 7-Segment Decoder/Driver	.99	.89
74LS51	14	Dual 2-Input AND/OR Invert Gate	.35	.25
74LS54	14	Quad 2-Input AND/OR Invert Gate	.29	.19
74LS55	14	Dual 4-Input AND/OR Invert Gate	.29	.19
74LS73	14	Dual JK Flip Flop with Clear	.39	.29
74LS74	14	Dual D Flip Flop	.35	.25
74LS75	16	Quad Latch	.39	.29
74LS76	16	Dual JK Flip Flop with Preset and Clear	.55	.45
74LS77	14	4-Bit Bistable Latch	.99	.89
74LS78	14	Dual JK Flip Flop w/Preset Comm. Clk & Clr	.89	.79
74LS83	16	4-Bit Full Adder	.59	.49
74LS85	16	4-Bit Magnitude Comparator	.59	.49
74LS86	14	Quad Exclusive OR Gate 2-Input	.35	.25
74LS90	14	Decade Counter	.49	.39
74LS91	14	8-Bit Shift Register	.89	.79
74LS92	14	Divide-by-Twelve Counter	.65	.55
74LS93	14	4-Bit Binary Counter	.49	.39
74LS95	14	4-Bit Parallel-Access Shift Register	.59	.49
74LS96	16	5-Bit Shift Register	.79	.69
74LS107	14	Dual JK Master-Slave Flip Flop	.45	.35
74LS109	16	Dual JK Positive Edge Flip Flop	.45	.35
74LS112	16	Dual JK Negative Edge Flip Flop	.39	.29
74LS113	14	Dual JK Negative Edge Flip Flop	.55	.45
74LS114	14	Dual JK Negative Edge Flip Flop	.55	.45
74LS122	14	Retriggerable Monostable Multivibrator	.55	.45
74LS123	16	Monostable Multivibrator with Clear	.59	.49
74LS125	14	Tri-State Quad Buffer	.49	.39
74LS126	14	Quad Buffer (Tri-State)	.49	.39
74LS132	14	Quad Schmitt Trigger	.49	.39
74LS133	16	13-Input NAND Gate	.49	.39
74LS136	14	Quad Exclusive OR Gate	.49	.39
74LS138	16	Expandable 3/8 Decoder	.49	.39
74LS139	16	Expandable Dual 2/4 Decoder	.49	.39
74LS145	16	BCD-to-Decimal Decoder/Driver	.99	.89
74LS148	16	8-Line to 3-Line Priority Encoder	1.09	.99
74LS151	16	8-Input Multiplexer	.49	.39
74LS153	16	Dual 4-Input Multiplexer	.49	.39
74LS154	24	Single 4-16 Decoder	1.09	.99
74LS155	16	Dual 2/4 Demultiplexer	.59	.49
74LS156	16	Dual 2/4 Demultiplexer (Open Collector)	.59	.49
74LS157	16	Quad 2/1 Multiplexer	.45	.35
74LS158	16	Quad 2/1 Multiplexer (Inv. Out)	.45	.35
74LS160	16	Presettable Decade Counter	.69	.59
74LS161	16	Presettable Binary Counter	.49	.39
74LS162	16	Presettable Decade Counter with Clear	.69	.59
74LS163	16	Presettable Binary Counter with Clear	.59	.49
74LS164	14	8-Bit Shift Register	.59	.49
74LS165	16	Parallel Load 8-Bit Serial Shift Register	.75	.65
74LS166	16	8-Bit Shift Register	.99	.89
74LS168	16	Synch. Decade Up/Down Counter (74LS668)	1.09	.99
74LS169	16	Synch. Binary Up/Down Counter (74LS669)	1.09	.99

Part No.	Pins	Function	1-9	10+
74LS170	16	4x4 Register File	1.49	1.39
74LS173	16	Quad D Register (Tri-State)	.59	.49
74LS174	16	Hex D Flip Flop with Clear	.49	.39
74LS175	16	Quad D Flip Flop	.49	.39
74LS181	24	Arithmetic Logic Unit	2.39	2.29
74LS189	16	64-Bit RAM Tri-State	4.59	4.49
74LS190	16	Up/Down Decade Counter	.59	.49
74LS191	16	Up/Down Binary Counter	.59	.49
74LS192	16	4-Bit Up/Down BCD Counter	.79	.69
74LS193	16	4-Bit Up/Down Binary Counter	.79	.69
74LS194	16	4-Bit Bi-Directional Universal Shift Register	.69	.59
74LS195	16	4-Bit Parallel-Access Shift Register	.69	.59
74LS196	14	Presettable Decade Counter	.79	.69
74LS197	14	Preset Binary Counter	.79	.69
74LS221	16	Dual One-Shot	.69	.59
74LS240	20	Octal Inverting Bus/Line Driver	.79	.69
74LS241	20	Octal Bus/Line Driver	.79	.69
74LS242	14	Quad Bus Transceiver Inverting	1.19	1.09
74LS243	14	Tri-State Quad Transceiver	.79	.69
74LS244	20	Octal Driver Non-Inverting Tri-State	.79	.69
74LS245	20	Octal Bus Transceiver Non-Inverting	.89	.79
74LS248	16	BCD to 7-Segment Decoder/Driver	1.09	.99
74LS249	16	BCD to 7-Segment Decoder/Driver	1.09	.99
74LS251	16	Tri-State 8-Channel Multiplexer	.59	.49
74LS253	16	Dual 4-Input Multiplexer Tri-State	.59	.49
74LS257	16	Quad 2-Input Multiplexer Tri-State	.49	.39
74LS258	16	Quad 2/1 Multiplexer	.59	.49
74LS259	16	8-Bit Addressable Latch	.99	.89
74LS260	14	Dual 5-Input NOR Gate	.59	.49
74LS261	16	2-Bit by 4-Bit Parallel Binary Multipliers	1.85	1.75
74LS266	14	Quad Ex-NOR Gate	.49	.39
74LS273	20	8-Bit D Type Register	.89	.79
74LS279	16	Quad S-R Latches	.49	.39
74LS280	14	9-Bit Odd/Even Parity Generator/Checker	1.29	1.19
74LS283	16	4-Bit Full Adder	.69	.59
74LS289	16	64-Bit RAM Open Collector	4.05	3.95
74LS293	14	4-Bit Binary Counter	.69	.59
74LS298	16	Quad 2-Input Multiplexer with Storage	.99	.89
74LS299	20	8-Bit Universal Shift/Storage Register	2.59	2.49
74LS322	20	8-Bit Serial/Parallel Reg. (25LS22)	4.05	3.95
74LS323	20	8-Bit Univ. Shift/Storage Reg. (25LS23)	4.05	3.95
74LS347	16	BCD to 7-Segment Decoder	1.89	1.79
74LS352	16	Dual 4-Bit Multiplexer (Inv. Out)	1.09	.99
74LS353	16	Dual 4-Bit Multiplexer (Inv. Out)	1.09	.99
74LS364	20	Octal D-Type Transparent Latch	2.05	1.95
74LS365	16	Hex Buffer (Tri-State)	.49	.39
74LS366	16	Hex Inverter (Tri-State)	.49	.39
74LS367	16	Hex Buffer (Tri-State)	.49	.39
74LS368	16	Hex Inverter (Tri-State)	.49	.39
74LS373	20	Octal Transparent Latch	.79	.69
74LS374	20	Octal Dual Flip Flop (Tri-State)	.79	.69
74LS375	16	Quad Latch	.79	.69
74LS377	20	Octal D Register, Common Enable (25LS07)	1.09	.99
74LS378	16	Hex D Register, Common Enable (25LS08)	1.19	1.09
74LS379	16	4-Bit Register, Common Enable	1.19	1.09
74LS384	16	8-Bit Serial/Parallel 2's Compl. Multiplier	6.05	5.95
74LS386	14	Quad Ex-OR Gate	.55	.45
74LS390	16	Dual 4-Bit Binary Counter	.89	.79
74LS393	14	Dual 4-Bit Binary Counter	.89	.79
74LS395	16	4-Bit Cascadable Shift Register (Tri-State)	1.09	.99
74LS399	16	Quad 2-Mux with Q & Q Outputs (25LS09)	1.29	1.19
74LS490	16	Dual 4-Bit Decade Counter	2.05	1.95
74LS533	20	Octal Transparent Latch (Tri-State)	1.29	1.19
74LS534	20	Octal D-Type Flip Flop (Tri-State)	1.29	1.19
74LS540	20	Octal Buffer/Line Driver (Tri-State)	1.29	1.19
74LS541	20	Octal Buffer/Line Driver (Tri-State)	1.29	1.19
74LS590	16	8-Bit with Output Registers	6.05	5.95
74LS623	20	Octal Bus Transceiver (Bi-Directional)	2.05	1.95
74LS624	14	Voltage Controlled Oscillator	2.05	1.95
74LS629	16	Dual Voltage-Controlled Oscillator	2.29	2.19
74LS640	20	Octal Bus Transceiver (Inverting) Tri-State	1.09	.99
74LS641	20	Octal Bus Transceiver (True) O.C.	1.09	.99
74LS644	20	Octal Bus Transceiver (True/Inverting) O.C.	1.09	.99
74LS645	20	Octal Bus Transceiver (True) Tri-State	1.09	.99
74LS670	16	4x4 Register File (Tri-State)	1.09	.99
74LS688	20	8-Bit Magnitude Comparator (25LS2521)	2.05	1.95
81LS95	20	Tri-State Octal Buffer - True (74LS465)	1.39	1.29
81LS96	20	Tri-State Octal Buffer - Inverting (74LS466)	1.39	1.29
81LS97	20	Tri-State Octal Buffer - True (74LS467)	1.39	1.29
81LS98	20	Tri-State Octal Buffer - Inverting (74LS468)	1.39	1.29

ADVANCED LOW POWER SCHOTTKY 74ALS00 SERIES ADVANCED LOW POWER SCHOTTKY

Part No.	Pins	Function	Price
74ALS00	14	Quad 2-Input NAND Gate	$ .35
74ALS02	14	Quad 2-Input NOR Gate	.35
74ALS04	14	Hex Inverter	.39
74ALS05	14	Hex Inverter (Open Collector)	.39
74ALS08	14	Quad 2-Input AND Gate	.39
74ALS10	14	Triple 3-Input NAND Gate	.39
74ALS11	14	Triple 3-Input AND Gate	.55
74ALS21	14	Dual 4-Input Positive AND Gate	.39
74ALS27	14	Triple 3 NOR Gate	.39
74ALS30	14	8-Input NAND Gate	.39
74ALS32	14	Quad 2-Input OR Gate	.39
74ALS74	14	Dual D Flip-Flop	.49
74ALS109	16	Dual JK Positive Edge Flip-Flop	.49
74ALS112	16	Dual JK Negative Edge Flip-Flop	$ .89
74ALS138	16	Expandable 3/8 Decoder	.89
74ALS139	16	Expandable Dual 2/4 Decoder	.89
74ALS174	16	Hex D Flip-Flop with Clear	.89
74ALS175	16	Quad D Flip-Flop	.89
74ALS240	20	Tri-State Octal Line Driver (Inverting)	1.49
74ALS244	20	Tri-State Octal Line Driver	1.49
74ALS245	20	Octal Bus Transceiver (Non-Inverting)	1.49
74ALS373	20	Tri-State Octal Latch	1.69
74ALS374	20	Tri-State Octal D Flip-Flop	1.69
74ALS573	20	Octal D Type Transparent Latch	1.69
74ALS574	20	Octal D-Type Edge-Triggered Flip-Flop	1.69

INTERSIL SERIES *Intersil's Evaluation Kits

5018CPA	8	Dual 150Ω Virtual GR. Analog Switch	$4.95
AD590IH	TO-52/3	2-Wire Current Output Temperature Transducer	2.95
7106CPL	40	3½-Digit LCD Single-Chip A/D Converter	9.95
7106EV/Kit*	40	7106, Circuit Board, Display and Components	49.95
7107CPL	40	3½-Digit LED Single-Chip A/D Converter	11.95
7107EV/Kit*	40	7107, Circuit Board, Display and Components	49.95
7116CPL	40	3½-Digit A/D LCD Converter with Display Hold	9.95
7135CPI	28	4½-Digit BCD Output A/D Converter	12.49
7201IUS	TO-72/4	Low Battery Volt Indicator	2.49
7206CJPE	16	CMOS Touch-Tone Encoder	5.95
7206EV/Kit*	16	7206 Chip, XTL and Data Sheet	7.95
7207AIPD	14	CMOS Timebase Generator	6.95
7207AEV/Kit*	14	7207 Chip, XTL and Data Sheet	8.95
7208IPI	28	7-Digit LED Display Counter	17.95
7209IPA	8	Timebase Generator	4.95
7211IPL	40	4-Digit LCD/LED Display Driver (TTL Compatible)	6.95
7211MIPL	40	4-Digit LCD/LED Display Driver (Micro Compatible)	7.49
7215IPG	24	6-Digit 4-Function LED Stopwatch	15.95
7215EV/Kit*	24	7215 Chip, XTL, and Data Sheet	19.95
7216CIJI	28	8-Digit Multi-Function Freq. Counter/Timer (C. Anode)	29.95
7216DIPI	28	8-Digit Multi-Function Freq. Counter/Timer (C. Cath.)	24.95
7217IJI	28	4-Digit LED Up/Down Counter (C. Anode)	$10.95
7217AIPI	28	4-Digit LED Up/Down Counter (C. Cathode)	9.95
7218CIJI	28	8-Digit Univ. LED Drive (C. Anode)	9.95
7218DIJI	28	8-Digit Univ. LED Drive (C. Cathode)	9.95
7224IPL	40	4½-Digit Up Counter Driver (LCD)	12.95
7226AIJL	40	8-Digit 10MHz Univ. Counter (C. Anode)	34.95
7226AEV/Kit*	40	5-Function Counter, XTL and Components	99.95
7240IJE	16	CMOS Programmable Timer	4.95
7242IJA	8	CMOS Long-Range Fixed Timer	2.49
7250IJE	16	CMOS BCD Prog. Timer/Counter	4.95
7555IPA	8	CMOS Timer (555 Replacement)	1.19
7556IPD	14	CMOS Timer (556 Replacement)	1.95
7660CPA	8	CMOS Voltage Converter (+5 to ±5V)	2.49
8038CCJD	14	Waveform Generator/Voltage Controlled OSC.	3.95
8048CCPE	16	Logarithmic Amplifier	7.95
8069CCSQ	TO-52/2	Low Voltage Reference Diode (7107CPL)	3.49
8211CPA	8	Programmable Voltage Detector	1.95
8212CPA	8	Programmable Voltage Detector	1.95

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CMOS CD4000 SERIES CMOS

CD4000	14	Dual 3-Input NOR Gate plus Inverter	$ .19
CD4001	14	Quad 2-Input NOR Gate	.19
CD4002	14	Dual 4-Input NOR Gate	.19
CD4006	14	18-Stage Static Shift Register	.69
CD4007	14	Dual Complementary Pair plus Inverter	.25
CD4009	16	Hex/Buffer/Converter (Inverting)	.29
CD4010	16	Hex/Buffer/Converter (Non-Inverting)	.29
CD4011	14	Quad 2-Input NAND Gate	.19
CD4012	14	Dual 4-Input NAND Gate	.25
CD4013	14	Dual D Flip-Flop with Set/Reset	.29
CD4014	16	8-Stage Static Shift Register	.59
CD4015	16	Dual 4-Stage Static Shift Register	.29
CD4016	14	Quad Bilateral Switch	.29
CD4017	16	Decade Counter/Divider	.55
CD4018	16	Presettable Divide-by-N Counter	.59
CD4019	16	Quad AND/OR Select Gate	.29
CD4020	16	14-Stage Binary/Ripple Counter	.59
CD4021	16	8-Stage Static Shift Register	.69
CD4022	16	Divide-by-8 Counter/Divider	.69
CD4023	14	Triple 3-Input NAND Gate	.25
CD4024	14	7-Stage Binary Counter	.49
CD4025	14	Triple 3-Input NOR Gate	.25
CD4026	16	Decade Counter/Divider	1.19
CD4027	16	Dual JK Master-Slave Flip-Flop	.35
CD4028	16	BCD-to-Decimal Decoder	.49
CD4029	16	Presettable Up/Down Counter	.59
CD4030	14	Quad Exclusive-OR Gate (74C86)	.29
CD4034	24	8-Bit Shift Register (14034)	.89
CD4035	16	4-Stage Parallel In/Out Shift Register	.65
CD4040	16	12-Stage Binary/Ripple Counter	.65
CD4041	14	Quad True/Complement Buffer	.59
CD4042	16	Quad Clocked D Latch	.59
CD4043	16	Quad NOR R-S Latch	.59
CD4044	16	Quad 3-State NAND R-S Latch	.59
CD4046	16	Micropower Phase-Locked Loop	.65
CD4047	14	Monostable/Astable Multivibrator	.65
CD4048	16	Expandable 8-Input Gate	.29
CD4049	16	Hex/Buffer/Converter (Inverting)	.29
CD4050	16	Hex/Buffer/Converter (Non-Inverting)	.29
CD4051	16	Single 8-Channel Multiplexer	.59
CD4052	16	Differential 4-Channel Multiplexer	.59
CD4053	16	Triple 2-Channel Multiplexer	.59
CD4056	16	BCD to 7-Segment Decoder/Driver	2.49
CD4059	24	Programmable Divide-by-N Counter	3.95
CD4060	16	14-Stage Ripple-Carry Binary	.65
CD4066	14	Quad Bilateral Switch	.29
CD4068	14	8-Input NAND Gate	.45
CD4069	14	Hex Inverter (74CO4)	.25
CD4070	14	Quad Exclusive-OR Gate (74C86)	$ .25
CD4071	14	Quad 2-Input OR Gate	.25
CD4072	14	Dual 4-Input OR Gate	.25
CD4073	14	Triple 3-Input AND Gate	.25
CD4075	14	Triple 3-Input OR Gate	.25
CD4076	16	Quad D Type Register (74C173)	.65
CD4077	14	Quad Exclusive-NOR Gate	.45
CD4078	14	8-Input NOR Gate	.45
CD4081	14	Quad 2-Input AND Gate	.25
CD4082	14	Dual 4-Input AND Gate	.25
CD4093	14	Quad 2-Input NAND Schmitt Trigger	.35
CD4094	16	8-Stage Shift-and-Store Bus Register	.89
CD4098	16	COS/MOS Dual Monostable Multivibrator	1.29
CD4099	16	8-Bit Addressable Latch	.75
CD40103	16	8-Bit Bin. COS/MOS Pre. Sync. Down Counter	2.49
CD4502	16	Strobed Hex Inverter/Buffer (14502)	1.09
CD4503	16	Tri-State Hex Buffer (80C97)	.35
CD4508	24	Dual 4-Bit Latch (14508)	1.95
CD4510	16	BCD Up/Down Counter (14510)	.69
CD4511	16	BCD to 7-Seg. Latch/Decoder/Driver (14511)	.69
CD4512	16	8-Channel Data Selector (14512)	.69
CD4514	24	4-Bit Latch/4-16 Line Decoder HI (14514)	.89
CD4515	24	4-Bit Latch/4-16 Decoder (14515)	.89
CD4516	16	Binary Up/Down Counter (14516)	.75
CD4518	16	Dual BCD Up Counter (14518)	.75
CD4519	16	4-Bit AND/OR Selector (14519)	.39
CD4520	16	Dual Binary Up Counter (14520)	.75
CD4522	16	Program. BCD Divide-By-N Counter (14522)	.79
CD4526	16	Divide-by-N Counter (Binary) (14526)	.79
CD4528	16	Dual Monostable Multivibrator (14528)	.69
CD4529	16	Dual 4-Channel Analog Data Selector (14529)	.69
CD4531	16	12-Bit Parity Tree (14531)	.99
CD4538	16	Dual Precision Mono. Multivibrator (14538)	.79
CD4539	16	Dual 4-Channel Data Selector/Multiplexer	1.09
CD4541	14	Oscillator/Programmable Timer (14541)	.69
CD4543	16	BCD to 7-Segment Decoder (LCD) (14543)	.79
CD4553	16	3-Digit BCD Counter (14553)	4.95
CD4555	16	Dual Bin. 1 of 4 Decoder/Demultiplexer (14555)	.79
CD4556	16	Dual Binary 1 of 4 Decoder Inv. (14556)	.79
CD4560	16	NBCD Adder (14560)	1.39
CD4566	16	Industrial Time Base Generator (14566)	2.49
CD4572	16	Hex Gate (14572)	.39
CD4583	16	Dual Schmitt Trigger (14583)	.89
CD4584	14	Hex Schmitt Trigger (14584)	.39
CD4585	16	4-Bit Comparator (14585)	.89
CD4723	16	Dual 4-Bit Addressable Latch	.89
CD4724	16	8-Bit Addressable Latch	.89

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CMOS 74C00 SERIES CMOS

Part No.	Pins	Function	Price
74C00	14	Quad 2-Input NAND Gate	$ .29
74C02	14	Quad 2-Input NOR Gate	.29
74C04	14	Hex Inverter (4069)	.29
74C08	14	Quad 2-Input AND Gate	.35
74C10	14	Triple 3-Input NAND Gate	.35
74C14	14	Hex Schmitt Trigger (40106)	.49
74C20	14	Dual 4-Input NAND Gate	.35
74C30	14	8-Input AND Gate	.35
74C32	14	Quad 2-Input OR Gate	.35
74C42	16	BCD-to-Decimal Decoder	1.19
74C48	16	BCD to 7-Segment Decoder/Driver	1.49
74C73	14	Dual JK Flip-Flop	.75
74C74	14	Dual D Flip-Flop	.59
74C85	16	4-Bit Comparator	1.39
74C86	14	Quad Exclusive OR Gate (4070)	.35
74C89	16	64-Bit (16x4) RAM (Tri-State) (4725)	5.19
74C90	14	4-Bit Decade Counter	.99
74C93	14	4-Bit Binary Counter	.99
74C95	14	4-Bit Shift Register	1.09
74C107	14	Dual JK Data Selector	.89
74C150	24	16-Line to 1-Line Multiplexer	2.95
74C151	16	8-Bit Data Select/Multiplex with Strobe	2.19
74C154	24	4-Line to 16-Line Decoder	2.95
74C157	16	Quad 2-Input Multiplexer	1.95
74C160	16	Synchronous Decade Counter (40160)	.79
74C161	16	Synchronous Binary Counter (40161)	.79
74C162	16	Fully Synchronous Decade Counter (40162)	.79
74C163	16	Fully Synchronous Binary Counter (40163)	.79
74C164	14	8-Bit Serial-In Para-Out Shift Register	1.15
74C165	16	8-Bit Parallel-Load Shift Register	1.15
74C173	16	Tri-State Quad Latch (4076)	$1.05
74C174	16	Hex Flip-Flop (40174) (MC14174)	.79
74C175	16	Quad D Flip-Flop (40175) (MC14175)	.79
74C192	16	Decade Up/Down Counter (40192)	1.19
74C193	16	Binary Up/Down Counter (40193)	1.19
74C194	16	4-Bit Bi-Directional Shift Register (40194)	1.09
74C195	16	4-Bit Parallel Access Shift Register (40195)	1.15
74C221	16	Dual Monostable Multivibrator	1.49
74C240	20	Tri-State Octal Buffer (Inverting)	1.29
74C244	20	Tri-State Octal Buffer (Non-Inverting)	1.29
74C373	20	Octal Flow-Thru Latch Tri-State	1.49
74C374	20	Octal D Flip-Flop Tri-State (INS82C06)	1.49
74C901	14	Hex Inverting Buffer (TTL Interface)	.59
74C902	14	Hex TTL Buffer	.59
74C903	14	Hex Inverting Buffer (MOS Interface)	.59
74C906	14	Hex Open Drain N-Channel Buffer	.59
74C907	14	Open Drain Buffer (Active Pull Down)	.59
74C911	28	Display Controller (INS8247)	7.95
74C912	28	Display Controller (INS8248)	7.95
74C915	18	7-Segment to BCD Decoder	1.39
74C917	28	Display Controller	7.95
74C920	22	256x4 1K Static RAM	9.95
74C921	18	256x4 1K Static RAM	9.95
74C922	18	16-Key Keyboard Encoder (INS8245)	3.95
74C923	20	20-Key Keyboard Encoder (INS8246)	3.95
74C925	16	4-Digit CTR w/MUX D Segment Driver	5.95
74C926	18	4-Digit CTR w/MUX D Segment Driver	5.95
74C930	18	1024x1 1K Static RAM	9.95
80C95	16	Tri-State Hex Buffer	.59
80C97	16	Tri-State Hex Buffer (4503)	.59

HIGH SPEED CMOS 74HC00 SERIES HIGH SPEED CMOS

Part No.	Pins	Function	Price
74HC00	14	Quad 2-Input NAND Gate	$ .25
74HC02	14	Quad 2-Input NOR Gate	.25
74HC03	14	2-Input NAND Gate (Open Drain)	.25
74HC04	14	Hex Inverter (Buffered)	.29
74HCU04	14	Hex Inverter (Unbuffered)	.29
74HC08	14	Quad 2-Input AND Gate	.29
74HC10	14	Triple 3-Input NAND Gate	.29
74HC11	14	Triple 3-Input AND Gate	.35
74HC14	14	Hex Inverting Schmitt Trigger	.49
74HC20	14	Dual 4-Input NAND Gate	.29
74HC27	14	Triple 3-Input NOR Gate	.29
74HC30	14	8-Input NAND Gate	.29
74HC32	14	Quad 2-Input OR Gate	.29
74HC42	16	BCD-to-Decimal Decoder	.65
74HC51	14	Dual 2-Input AND-OR-Invert Gate	.29
74HC58	14	Dual AND/OR Gate	.29
74HC73	14	Dual J-K Flip-Flop with Clear	.39
74HC74	14	Dual D Flip-Flop with Preset and Clear	.39
74HC75	16	4-Bit Bistable Latch with Q&Q Output	.39
74HC76	16	Dual J-K Flip-Flop with Preset and Clear	.45
74HC85	16	4-Bit Magnitude Comparator	.79
74HC86	14	Quad 2-Input Exclusive-OR (XOR) Gate	.39
74HC107	14	Dual J-K Flip-Flop with Clear	.45
74HC109	16	Dual J-K Flip-Flop with Preset and Clear	.45
74HC112	16	Dual J-K Flip-Flop with Preset and Clear	.49
74HC113	14	Dual J-K Flip-Flop with Preset	.49
74HC123	16	Dual Monostable Multivibrator	.89
74HC125	14	Tri-State Quad Buffer	.49
74HC126	14	Tri-State Quad Buffer	.49
74HC132	14	Quad 2-Input NAND Schmitt Trigger	.49
74HC133	16	13-Input NAND Gate	.49
74HC137	16	1 to 8 with Latch Decoder (Inverting Output)	.69
74HC138	16	3-to-8 Line Decoder	.49
74HC139	16	Expandable Dual 2/4 Line Decoder	.49
74HC147	16	10/4 Line Priority Encoder	.65
74HC151	16	8-Channel Digital Multiplexer	.55
74HC153	16	Dual 4-Input Multiplexer	.55
74HC154	S-24	4/16 Line Decoder (use 24 pin-SLP Socket)	1.19
74HC157	16	Quad 2-Input Multiplexer	.59
74HC158	16	Quad 2-Input Multiplexer (Inverting Output)	.59
74HC160	16	Synchronous Decade Counter	.59
74HC161	16	Synchronous Binary Counter	.59
74HC162	16	Synchronous Decade Counter	.65
74HC163	16	Synchronous Binary Counter	.65
74HC164	14	8-Bit Serial-in/Parallel-out Shift Register	.65
74HC165	16	8-Bit Parallel-in/Serial-out Shift Register	.65
74HC166	16	8-Bit Shift Register	1.49
74HC173	16	Tri-State Quad D Flip-Flop	.69
74HC174	16	Hex D Flip-Flop with Clear	.69
74HC175	16	Quad D Type Flip-Flop with Clear	.69
74HC181	24	Arithmetic Logic Unit/Function Generator	2.39
74HC190	16	Up/Down Decade Counter	.89
74HC191	16	Up/Down Binary Counter	.89
74HC192	16	Synchronous Decade Up/Down Counter	$ .79
74HC193	16	Synchronous Binary Up/Down Counter	.79
74HC194	16	4-Bit Bidirectional Universal Shift Register	.79
74HC195	16	4-Bit Parallel Shift Register	.79
74HC221	16	Dual Monostable Multivibrator	.99
74HC237	16	3-to-8 Line Decoder with Address Latches	.65
74HC240	20	Inverting Octal Tri-State Buffer	.79
74HC241	20	Octal Tri-State Buffer (TTL Buffer)	.79
74HC242	14	Inverting Quad Tri-State Transceiver	.75
74HC243	14	Quad Tri-State Transceiver	.75
74HC244	20	Octal Tri-State Buffer	.79
74HC245	20	Octal Tri-State Transceiver	.89
74HC251	16	Tri-State 8-Channel Multiplexer	.59
74HC253	16	Dual 4-Channel Tri-State Multiplexer	.59
74HC257	16	Quad 2-Channel Tri-State Multiplexer	.59
74HC259	16	8-Bit Addressable Latch 3-to-8 Line Decoder	.65
74HC266	14	Quad 2-Input Exclusive-NOR (XNOR) Gate	.39
74HC273	20	Octal D Flip-Flop	.79
74HC280	14	9-Bit Odd/Even Parity Generator/Checker	2.49
74HC283	16	4-Bit Binary Adder with Fast Carry	.89
74HC299	20	8-Bit Tri-State Universal Shift Register	1.49
74HC365	16	Hex Tri-State Buffer	.69
74HC366	16	Tri-State Hex Inverter	.75
74HC367	16	Tri-State Hex Buffer	.75
74HC373	20	Tri-State Octal D Type Latch	.79
74HC374	20	Tri-State Octal D Type Flip-Flop	.79
74HC390	16	Dual 4-Bit Decade Counter	.85
74HC393	14	Dual 4-Bit Binary Counter	.75
74HC533	20	Tri-State Octal D Type Latch w/Inv. Outputs	.89
74HC534	20	Tri-State Octal D Type Flip-Flop w/Inv. Outputs	.89
74HC563	20	Tri-State Octal D Type Latch w/Inv. Outputs	1.29
74HC564	20	Tri-State Octal D-Type Flip-Flop w/Inv. Outputs	1.29
74HC573	20	Tri-State Octal D-Type Latch	.99
74HC574	20	Tri-State Octal D-Type Flip-Flop	.99
74HC595	16	8-Bit Serial-to-Parallel Shift Register Latch	1.19
74HC688	20	8-Bit Mag. Comparator (Equality Detector)	.79
74HC4002	14	Dual 4-Input NOR Gate	.29
74HC4016	14	Quad Analog Switch	.79
74HC4017	16	Decade Counter/Div. w/10 Decoded Outputs	1.09
74HC4020	16	14-Stage Binary Counter	.85
74HC4024	14	7-Stage Ripple Counter	1.09
74HC4040	16	12-Stage Binary Counter	.89
74HC4046	16	CMOS Phase Lock Loop	1.29
74HC4049	16	Hex/Buffer/Converter (Inverting)	.59
74HC4050	16	Hex/Buffer/Converter (Non-Inverting)	.59
74HC4060	16	14-Stage Binary Counter	1.09
74HC4066	14	Quad Analog Switch	.79
74HC4075	14	Triple 3-Input OR Gate	.29
74HC4078	14	8-Input NOR Gate	.29
74HC4511	16	BCD-to-7 Segment Latch/Decoder Driver	1.29
74HC4514	S-24	4/16-Line Decoder w/Latch (use 24 pin-SLP socket)	1.19
74HC4538	16	Dual Retriggerable Monostable Multivib.	.89
74HC4543	16	BCD-to-7 Seg. Latch/Decoder for LCDs	1.19

LINEAR SERIES

Part No.	Pins	Function	Price
LH0002CN	10	Buffer Amplifier	$5.95
LM10CLH	TO-5/8	Low Voltage (1.1 volt) Op Amp	2.95
LM10CLN	8	Low Voltage (1.1 volt) Op Amp	2.19
MF10CN	20	General Purpose Dual Active Filter	2.95
LM11CLH	TO-5/8	Precision DC Op Amp	2.95
LAS15CB	TO-3	13.8V Positive Voltage Regulator 1.5 Amp	2.95
DH0017CN	10	Relay/Lamp Driver	2.49
DS0026CN	8	Dual Mos Clock Driver (5MHz) 20V Output	1.95
TL064CN	14	Low-Power JFET-Input Op Amp	1.95
LH0070-OH	TO-5/3	Precision BCD Buffered Reference	5.95
TL071CP	8	Low Noise BIFET Op Amp	.65
TL072CP	8	Low Noise BIFET Dual Op Amp	.89
TL074CN	14	Quad Low Noise BIFET Op Amp	.89
78MGUIC	TO-220/4	Positive/Adjustable Regulator (500mA)	1.19
TL081CP	8	JFET-Input Op Amp	.49
TL082CP	8	Gen. Purpose BIFET Dual Op Amp	.49
TL084CN	14	Gen. Purpose BIFET Quad Op Amp	.99
AF100-ICN	16	Universal Active Filter (2.5%)	8.95
LM109K	TO-3	5V 1.5A Regulator	5.95
LM300H	TO-5/8	Positive Voltage Regulator (2V-20V)	.89
LM301N	8	Improved Op Amp	.35
LM301H	TO-5/8	Improved Op Amp	.69
LM304H	TO-5/10	Negative Voltage Regulator (0-30V)	2.49
LM305H	TO-5/8	Positive Voltage Regulator (4.5V-40V)	.89
LM307N	8	Op Amp (Super 741)	.45
LM307H	TO-5/8	Op Amp (Super 741)	.69
LM308N	8	Micro Power Op Amp	.59
LM308H	TO-5/8	Micro Power Op Amp	.99
LM309K	TO-3	5-Volt Amp Regulator (1 Amp)	1.25
LM310N	8	Improved Op Amp-Volt. Follower	1.29
LM310H	TO-5/8	Improved Op Amp-Volt. Follower	1.39
LM311N	8	Hi-Performance Volt. Comparator	.45
LM311-14N	14	Hi-Performance Volt. Comparator	.89
LM311H	TO-5/8	Hi-Performance Volt. Comparator	.89
LM317K	TO-3	1.5A Adj. Pos. Regulator (1.2V-37V)	2.65
LM317LZ	TO-92/3	100mA Adjustable Regulator (1.2V-37V)	.69
LM317MP	TO-202/3	.5A/3 Term. Adj. Pos. Reg. (1.2V-37V)	.89
LM317T	TO-220	1.5A/3 Term. Adj. Pos. Reg. (1.2V-37V)	.79
LM318N	8	Precision Hi-Speed Op Amp	.99
LM318H	TO-5/8	Precision Hi-Speed Op Amp	1.39
LM319N	14	Hi-Speed Dual Comparator	.99
LM320H-5.0	TO-5	5V Neg. Voltage Regulator (50mA)	3.95
LM320MP-12	TO-202/3	12V Negative Voltage Regulator (0.50A)	1.49
LM320MLP-5	TO-202/3	5V Negative Voltage Regulator (0.25A)	.99
LM322N	14	Precision Timer	1.49
LM323K	TO-3	5-Volt Positive 3-Amp Regulator	3.95
LM324N	14	Low Power Quad Op Amp (ULN4336)	.39
LM329DZ	TO-92/3	Precision Zener 100PPM/C°6.9V	.49
LM331N	8	Precision Voltage to Freq. Converter	3.95
LM334Z	TO-92/3	Constant Current Source	1.09
LM335Z	TO-92/3	Voltage Mode Temperature Sensor	1.39
LM336Z	TO-92/3	Voltage Reference (2.5V)	.99
LM337MP	TO-202/3	.5A/3 Term. Adj. Neg. Reg. (1.2V-37V)	1.15
LM337T	TO-220	1.5A/3 Term. Adj. Neg. Reg. (1.2V-37V)	.99
LM338K	TO-3	5A Adjust. Pos. Regulator (1.2V-32V)	4.95
LM339N	14	Quad Comparator	.39
LM341P-5	TO-202/3	5V Pos. (0.5A) Volt Reg. (78M05-Similar)	.45
LM341P-12	TO-202/3	12V Pos. (0.5A) Volt Reg. (78M12-Similar)	.45
LM341P-15	TO-202/3	15V Pos. (0.5A) Volt Reg. (78M15-Similar)	.45
LM342P-12	TO-202/3	12V Pos. (0.25A) Volt Reg.	.49
LM346N	16	Programmable Quad Op Amp	1.29
LF347N	14	Quad JFET Input Op Amp (Wide Band)	1.79
LM348N	14	Quad 741 Op Amp	.69
LM350K	TO-3	3A/3 Term. Adj. Pos. Reg. (1.2V-33V)	3.75
LM350T	TO-220	3 Amp Adjustable Power Regulator	2.95
LF351N	8	BIFET Op Amp	.39
LF353N	8	Dual BIFET Op Amp (Compat. w/TL082CP)	.49
LF355H	TO-5	Mono. JFET Op Amp (Low Power Supply Current)	1.39
LF355N	8	JFET Input Op Amp Low Power	.79
LF356H	TO-5	Mono. JFET Op Amp (Wide Bandwidth)	1.39
LF356N	8	JFET General Purpose Input Op Amp	.79
LF357N	8	Mono. J-FET Input Op Amp (Wide Band Decompensated)	1.09
LM358N	8	Low Power Dual Op Amp	.49
LM359N	14	High Speed Norton Op Amp	1.59
LM360N	8	High Speed Differential Volt. Comparator	2.19
LM361N	14	Hi Speed Diff. Volt Comp. w/Indep. Strobes (NE529)	1.79
LM370N	14	AGC Squelch Amp	4.95
LM373N	14	AM/FM/SSB Strip	4.95
LM377N	14	Dual 2-Watt Power Amp (ULN2278)	2.49
LM380N	14	2-Watt Audio Power Amp (ULN2280)	.89
LM380N-8	8	.6-Watt Audio Amp	.99
LM381N	14	Low Noise Dual Pre-Amp (112dB)	1.95
LM382N	14	Low Noise Dual Pre-Amp (110dB)	1.69
LM383T	TO-220/5	7-Watt Audio High Power Amplifier	1.95
LM384N	14	5-Watt Audio Amp (ULN2281)	1.49
LM385Z	TO-92/3	Micropower Voltage Reference Diode	1.49
LM386N-1	8	Low Voltage Audio Amp .250W/6V	.79
LM386N-3	8	Low Voltage Audio Amp .500W/9V	.99
LM387N	8	Low Noise Dual Pre-Amp	.99
LM389N	18	Low Voltage Audio Amp w/XTRS	.79
LM391N-80	16	Audio Power Driver (±40V or +80V)	1.29
LM392N	8	Op Amp and Comparator	.75
LM393N	8	Dual Comparator	.39
LF398N	8	Sample and Hold Amplifier	1.95
LM399H	TO-5/4	Temp. Compensated Prec. Ref.(.5ppm/C°)	2.95
LF411CN	8	Low Offset, Low Drift JFET Input Op Amp	.79
LF412CN	8	BIFET Lo-Off Set Op Amp (Dual)	1.29
TL431CLP	8	Programmable Precision Reference	.89

Part No.	Pins	Function	Price
TL494CN	16	Switching Reg. (Pulse Width Modulated)	$1.95
TL496CP	8	Single Switching Regulator	1.59
TL497ACN	14	Fixed-On-Time Var.-Freq. Switch. Volt. Reg.	2.69
NE531V	8	Op Amp	1.59
NE540H	TO-5/10	Power Driver (C540H)	2.95
NE544N	14	Servo Amp	1.29
NE550H	TO-5/10	Precision Voltage Regulator	1.19
NE555V	8	Timer (MC1455P) (UPC1555C)	.29
XR-L555	8	Low Power 555 Timer	.75
LM556N	14	Dual 555 Timer	.49
NE558N	16	Quad Timer	.89
NE564N	16	Digital Phase Locked Loop	1.95
LM565N	14	Phased Locked Loop	.99
LM565CH	TO-5/10	Phased Locked Loop	1.95
LM566CN	8	Function Generator	1.19
LM567V	8	Tone Decoder Phased Locked Loop	.69
NE570N	16	Compander	2.49
NE571N	16	Compander	1.95
NE592N	14	Video Amp	.89
LM703CN	8	RF-IF Amp	1.19
LM709N	14	Op Amp	.45
LM709CH	TO-5/8	Op Amp	.69
LM710N	14	Voltage Comparator	.69
LM710CH	TO-5/8	Voltage Comparator	.89
LM711N	14	Dual Difference Comparator	.79
LM711CH	TO-5/10	Dual Difference Comparator	.99
LM723CN	14	Voltage Regulator (2V-37V)	.39
LM723CH	TO-5/10	Voltage Regulator (2V-37V)	.65
LM725CN	8	Instrumentation Op Amp	1.95
LM733CN	14	Video Amp	.59
LM739N	14	Dual Hi-Performance Op Amp	2.95
LM741CN	8	Compensated Op Amp (ULN2151)	.29
LM741CH	TO-5/8	Compensated Op Amp	.65
LM741-14N	14	Compensated Op Amp	.59
LM747CN	14	Dual 741 Op Amp	.59
LM747CH	TO-5/10	Dual 741 Op Amp	.79
LM748CN	8	Frequency Adjusted 741	.49
LM748CH	TO-5/8	Frequency Adjusted 741	.65
UA760HC	TO-5/8	High-Speed Differential Comparator	4.95
DS8T26AN	16	Quad Tri-State Bus Transceiver (MC6880) (N8T26)	1.29
DS8T28N	16	Quad Tri-State Line Driver (N8T28)	1.29
LM1014N-2	8	Motor Speed Control	1.69
LM1303N	14	Stereo Pre-Amp	.89
LM1310N	14	Stereo Demodulator (ULN2110)	3.95
MC1330A1	8	Low Level Video Detector	1.49
MC1349	8	Video IF Amp (15V)	1.49
MC1350	8	Video IF Amp (12V)	1.49
MC1372P	14	Color TV Video Modulator	2.49
MC1377P	20	Color TV RGB to PAL/NTSC Encoder	4.95
MC1398P	14	TV Color Processing Circuit	8.95
LM1414N	14	Dual Differential Voltage Comparator	1.29
LM1456V	8	Op Amp Hi-Performance (N5556)	1.49
LM1458N	8	Dual Comp. Op Amp (MC5558V/RC4558)	.39
LM1458H	TO-5/8	Dual Comp. Op Amp (MC5558H/RC4558T)	.69
LM1488N	14	Quad Line Driver (75188) RS232	.49
DS14C88N	14	Quad CMOS Line Driver (RS232)	1.19
LM1489N	14	Quad Line Receiver (75189) RS232	.49
DS14C89N	14	Quad CMOS Line Receiver (RS232)	1.19
LM1496N	14	Balanced Mod/Demodulator	.85
LH1605CK	TO-3/8	5A Hi. Eff. Switching Reg. (Adj. 3-30V)	11.95
MC1648P	14	Voltage Controlled Oscillator	5.95
MC1741SCG	TO-5/8	High Slew Op Amp	1.49
LM1800N	16	PLL Stereo Decoder (UA758/ULN2244)	2.95
LM1871N	18	Radio Control Encoder/Transmitter	2.95
LM1872N	18	Radio Control Receiver/Decoder	2.95
LM1877N-9	14	Dual Power Audio Amp	2.49
LM1886N	20	TV Video Matrix D to A Converter	2.95
LM1889N	18	Video Modulator	2.95
LM1893N	18	Carrier Current Trans. (Power Line Carrier)	5.95
LM1896N-1	14	Low Voltage Dual Audio Amp	1.59
ULN2001	16	Hi-Volt. Hi-Curr. Darlington Transistor Array	1.39
LM2002T	TO-220/5	8-Watt Audio Power Amp	1.49
TDA2002V	TO-220/5	8-Watt Audio High Power Amp	1.19
ULN2003A	16	Hi-Volt. Hi-Curr. Darlington Transistor Array	.99
ULN2023	16	7-Channel, High Voltage & Amp Driver	.99
ULN2064	16	Peripheral Driver	1.69
ULN2074	16	Peripheral Driver	1.69
DS26LS29CN	16	Quad Three-State Single Ended RS-423 Line Driver	4.49
DS26LS31CN	16	Quad Differential Line Driver	1.19
DS26LS32CN	16	Quad Differential Line Receiver	1.19
DS26LS33CN	16	Quad Differential Line Receiver	1.95
ULN2803A	18	Hi-Volt., Hi-Curr. Darlington Trans. Array	1.19
LM2878P	P11A	Dual 6-Watt Audio Amp (SIP)	2.95
LM2901N	14	Quad Comparator (Low Power) MC3302P	.49
LM2902N	14	Quad (Low Power) Comparator	.49
LM2903N	8	Dual Comparator	.49
LM2904N	8	Low Power Dual Op Amp	.49
LM2907N	14	Frequency to Voltage Converter	2.49
LM2917N	8	Freq. to Voltage Converter (CS2917)	1.55
LM2917-14N	14	Freq. to Voltage Converter	1.49
LM2931CT	TO-220/5	Adjustable Low Dropout Regulator	1.19
LM2935T	TO-220/5	Low Dropout Dual Regulator	1.95
SI-3052P	TO-3P	5V Positive Voltage Regulator 2 Amp	5.95
LM3053H	TO-5/8	Differential RF/IF Amplifier	1.49
LM3189N	16	FM/IF System	1.69
MC3310P	8	FM/IF Wide Band Amp	.89
MC3346P	14	General Purpose Transistor Array	1.39
MC3419CL	18	Subscriber Loop Interface Circuit (SLIC)	9.95

LINEAR SERIES *(CONTINUED)*

Part No.	Pins	Function	Price
MC3446N	16	Quad Interface Bus Transceiver	$2.95
MC3450P	16	Quad MTTL Comp. Line Receiver w/Common 3-State Strobe Input	2.95
MC3470P	18	Floppy Disk Read Amp System	1.95
MC3471P	20	Floppy Disk Write Controller/Head Driver	4.95
MC3479P	16	Biphase Stepper Motor Driver	4.79
MC3486P	16	Quad RS-422/423 Line Rec. w/3-State Outputs	1.69
MC3487P	16	Quad RS-422 Line Driver w/3-State Outputs	1.69
SG3524	16	Regulating Pulse Width Modulator	1.95
SG3526	18	Regulating Pulse Width Modulator	3.95
DS3679N	16	Hex Tri-State MOS Driver	1.69
LM3900N	14	Quad Amp	.49
LM3905N	8	Precision Timer	1.19
LM3909N	8	LED Flasher	.99
LM3911N	8	Temperature Controller	1.49
LM3914N	18	Bar-Graph Display Driver	1.95
LM3915N	18	3 DB Steps Bar-Graph Display Driver	1.95
LM3916N	18	VU Meter Display Driver	1.95
RC4136N	14	Quad Op Amp (XR4136)	.79
RC4151NB	8	Voltage to Freq. Converter (XR4151)	.89
RC4193NB(DE)	8	Micro-Power Switching Regulator	3.95
LM4250CN	8	Programmable Op Amp	1.19
NE5532	8	Dual Low-Noise Op Amp	.89
NE5534	8	Low Noise Op Amp	.69
NE5561N	8	Switched Mode Power Supply Controller	1.39
DS7534N	16	Core Memory Sense Amp	.75
7805K	TO-3	5V Pos. Volt Reg. (LM340K-5) 1 Amp	1.29
7806K	TO-3	6V Pos. Volt Reg. (LM340K-6) 1 Amp	1.29
7808K	TO-3	8V Pos. Volt Reg. (LM340K-8) 1 Amp	1.29
7812K	TO-3	12V Pos. Volt Reg. (LM340K-12) 1 Amp	1.29
7815K	TO-3	15V Pos. Volt Reg. (LM340K-15) 1 Amp	1.29
7818K	TO-3	18V Pos. Volt Reg. (LM340K-18) 1 Amp	1.29
7824K	TO-3	24V Pos. Volt Reg. (LM340K-24) 1 Amp	1.29
7805T	TO-220	5V Pos. Volt Reg. (LM340T-5) 1 Amp	.49
7806T	TO-220	6V Pos. Volt Reg. (LM340T-6) 1 Amp	.49
7808T	TO-220	8V Pos. Volt Reg. (LM340T-8) 1 Amp	.49
7812T	TO-220	12V Pos. Volt Reg. (LM340T-12) 1 Amp	.49
7815T	TO-220	15V Pos. Volt Reg. (LM340T-15) 1 Amp	.49
7818T	TO-220	18V Pos. Volt Reg. (LM340T-18) 1 Amp	.49
7824T	TO-220	24V Pos. Volt Reg. (LM340T-24) 1 Amp	.49
78L05AC	TO-92	5V Positive Voltage Regulator (100mA)	.29
78L12AC	TO-92	12V Positive Voltage Regulator (100mA)	.29
78L15AC	TO-92	15V Positive Voltage Regulator (100mA)	.29
78S40	16	Switching Regulator 1.5A (1.3V-40V)	1.95
7905K	TO-3	5V Neg. Volt Reg. (LM320K-5) 1 Amp	1.35
7906K	TO-3	6V Neg. Volt Reg. (LM320K-6) 1 Amp	1.35
7908K	TO-3	8V Neg. Volt Reg. (LM320K-8) 1 Amp	1.35
7912K	TO-3	12V Neg. Volt Reg. (LM320K-12) 1 Amp	1.35
7915K	TO-3	15V Neg. Volt Reg. (LM320K-15) 1 Amp	1.35
7918K	TO-3	18V Neg. Volt Reg. (LM320K-18) 1 Amp	1.35
7924K	TO-3	24V Neg. Volt Reg. (LM320K-24) 1 Amp	1.35
7905T	TO-220	5V Neg. Volt Reg. (LM320T-5) 1 Amp	.59
7906T	TO-220	6V Neg. Volt Reg. (LM320T-6) 1 Amp	.59
7908T	TO-220	8V Neg. Volt Reg. (LM320T-8) 1 Amp	.59
7912T	TO-220	12V Neg. Volt Reg. (LM320T-12) 1 Amp	.59
7915T	TO-220	15V Neg. Volt Reg. (LM320T-15) 1 Amp	.59
7918T	TO-220	18V Neg. Volt Reg. (LM320T-18) 1 Amp	.59
7924T	TO-220	24V Neg. Volt Reg. (LM320T-24) 1 Amp	.59

Part No.	Pins	Function	Price
79L05AC	TO-92	5V Negative Voltage Regulator (100mA)	$ .49
79L12AC	TO-92	12V Negative Voltage Regulator (100mA)	.49
79L15AC	TO-92	15V Negative Voltage Regulator (100mA)	.49
79M05AH	TO-5/3	5V Negative Voltage Regulator (500mA)	1.75
79M05C	TO-220	5V Negative Voltage Regulator (500mA)	.25
79M12A	TO-220	12V Negative Voltage Regulator (500mA)	.59
8038CCJD	14	Precision Wave Form Generator	3.95
LM13080N	8	Programmable Power Op Amp	1.19
LF13201N	16	Quad SPST JFET Analog Switches	2.95
LM13600N	16	Dual Transconductance Amp	.89
LF13741N	8	Monolithic JFET Input Op Amp	.55
75107N	14	Dual Line Receiver (Totem Pole Outputs)	.99
75108A	14	Dual Line Receiver (Open Coll. Outputs)	.99
75109N	14	Dual Line Driver	1.39
75110A	14	Dual Line Driver (12mA Current Switch)	1.49
75S110	14	Dual Line Driver (12mA Current Switch)	1.95
75113	16	Dual Diff. Line Driver w/3-State Outputs	1.19
75114	16	Dual Diff. Line Driver (9614)	1.19
75115	16	Dual Diff. Line Receiver (9615)	1.19
75121	16	Dual Line Driver (N8T13)	1.39
75123N	16	Dual Line Driver (N8T23)	1.49
75124N	16	Triple Line Receiver (N8T24)	1.49
75138N	16	Quad-Bus Transceiver	2.95
75150CN	8	Dual Line Driver (RS232)	1.19
75154N	16	Quad Line Receiver (9617)	1.39
75160AN	20	Octal General Purpose Interface Bus Transceiver	4.59
75161AN	20	Octal General Purpose Interface Bus Transceiver	4.95
75174	16	Quad Diff. RS-422 Line Driver w/3-State Outputs	2.95
75175	16	Quad Diff. RS-422A/423A Line Rec. w/3-St. Out.	2.95
75234N	16	Dual Sense Amplifier	2.95
75322N	14	Dual TTL to MOS Driver	1.95
75327	16	Monolithic Quadruple Memory Core Driver	2.95
75361	8	Dual NAND TTL-to-MOS Driver	1.95
75368N	14	Dual MOS Driver	1.49
75450N	14	Dual Peripheral AND Driver	.69
75451CN	8	Dual Peripheral AND Driver	.49
75452CN	8	Dual Peripheral NAND Driver	.49
75452N-14	14	Dual Peripheral NAND Driver	.49
75453CN	8	Dual Peripheral OR Driver	.49
75453N-14	14	Dual Peripheral OR Driver	.49
75454CN	8	Dual Peripheral NOR Driver	.49
75454N-14	14	Dual Peripheral NOR Driver	.49
75461N	8	Dual Peripheral AND Driver	.59
75462N	8	Dual Peripheral NAND Driver	.59
75463N	8	Dual Peripheral OR Driver	.59
75464H	TO-5/8	Dual Peripheral NOR Driver	1.39
75472	8	Hi-Volt., Hi-Curr. Dual Peripheral NAND Driver	.99
75477	8	Hi-Speed Switch. Dual Peripheral NAND Driver	1.29
75478	8	Hi-Speed Switch. Dual Peripheral OR Driver	1.29
75491N	14	Quad Segment Driver for LED Readout	.79
75492N	14	Hex Digit Driver	.79
75493N	16	4-Segment LED Driver	1.49
75494N	18	6-Segment LED Driver	1.09
76002ND	14	5 Watt Audio Power Amplifier	1.95
76477	28	Complex Sound Generator	5.95
76489	16	Sound Generator Controller	6.95

EXAR LINEAR SERIES

XR205	16	Waveform Generator	$5.95
XR210	16	FSK Demodulator	3.95
XR215	16	High-Frequency PLL	3.95
XR320	14	Precision Timer	1.29
XR-L555	8	Micro-Power 555 Timer	.75
XR1468	14	Dual ± 15V Tracking Regulator	2.49
XR2206	16	Monolithic Function Generator	3.95
XR2207	14	Voltage-Controlled Oscillator	2.49
XR2208	16	Operational Multiplier	2.19
XR2209	8	Precision Oscillator	2.49
XR2211	14	FSK Demodulator	2.95
XR2212	16	Precision Phase Locked Loop	4.49
XR2216	16	Monolithic Compander	$1.95
XR2240	16	Programmable Counter/Timer	1.69
XR2242	8	555 Timer with 8-Bit Counter	1.95
XR2243	8	Low Power Long Range Timer	1.95
XR2556	14	Dual Timing Circuit	1.29
XR3403	14	Quad Op Amp	.59
XR4136	14	Quad Op Amp (RC4136N)	.89
XR4194	14	Dual ± 35V Tracking Volt Reg.	2.49
XR4202	16	Quad Programmable Op Amp	1.95
XR4212	14	Quad 741	.89
XR4739	14	Dual Low-Noise Op Amp	1.19
XR4741	14	Quad Op Amp	.89

RCA LINEAR SERIES

CA3045P	14	General-Purpose Transistor Array	$4.95
CA3046N	14	Transistor Array (ULN2046)	.65
CA3054N	14	Dual Independent Differential Amplifier	.89
CA3059E	14	Zero Voltage Switch	1.95
CA3065E	14	TV-FM Sound System	.89
CA3080E	8	Operational Transconductance Amp	1.19
CA3080H	TO-5/8	Operational Transconductance Amp	.95
CA3081N	16	Common Emitter NPN Array (ULN2081)	.79
CA3082N	16	Common Collector NPN Array (ULN2082)	.79
CA3083N	16	Transistor Array NPN (ULN2083)	.79
CA3086N	14	Transistor Array NPN (ULN2086)	.59
CA3089N	16	FM/IF System (ULN2289)	1.19
CA3096N	16	NPN/PNP Transistor Array	1.49
CA3127E	16	High Frequency N-P-N Transistor Array	$2.69
CA3130E	8	Super CMOS Op Amp	1.19
CA3130T	TO-5/8	Super CMOS Op Amp	1.79
CA3140E	8	Bi-MOS Op Amp	.79
CA3140T	TO-5/8	Bi-MOS Op Amp	1.79
CA3146E	14	High-Voltage Transistor Array	.89
CA3160T	TO-5/8	Bi-MOS Op Amp	1.79
CA3160E	8	Bi-MOS Op Amp	1.29
CA3161E	16	BCD to 7-Segment Decoder Driver	1.69
CA3162E	16	Dual Slope and Rate Analog to Dig. Conv. (BCD Out)	5.95
CA3179E	14	1.25 GHz Prescaler	2.95
CA3183E	16	High-Voltage Transistor Array	1.49
CA3401N	14	Quad Amp (LM3900N)	.69

HIGH SPEED CMOS TTL 74HCT00 SERIES HIGH SPEED CMOS TTL

Part No.	Pins	Function	Price
74HCT00	14	Quad 2-Input NAND Gate	$ .29
74HCT02	14	Quad 2-Input NOR Gate	.29
74HCT04	14	Hex Inverter	.29
74HCT08	14	Quad 2-Input AND Gate	.29
74HCT10	14	Triple 3-Input NAND Gate	.29
74HCT32	14	Quad 2-Input OR Gate	.29
74HCT74	14	Dual D Flip Flop	.49
74HCT86	14	Quad 2-Input EXCLUSIVE-OR Gate	.49
74HCT138	16	Expandable 3/8 Decoder	.59
74HCT139	16	Expandable Dual 2/4 Decoder	$ .59
74HCT157	16	Quad 2/1 Multiplexer	.69
74HCT174	16	Hex D Flip Flop with Clear	.69
74HCT175	16	Quad D Flip Flop with Clear	.69
74HCT240	20	Inverting Octal Tri-State Buffer	.99
74HCT244	20	Octal Tri-State Buffer	.99
74HCT245	20	Octal Tri-State Transceiver	1.19
74HCT373	20	Tri-State Octal D Type Latch	1.19
74HCT374	20	Tri-State Octal D Type Flip Flop	1.19

FAIRCHILD 9000 SERIES

9000	14	JK Master/Slave Flip-Flop (74104)	$ .99
9003	14	Triple 3-Input NAND Gate	.69
9006	14	Dual 4-Input Expander	.69
9300	16	4-Bit Shift Register (74195)	.79
93L00	16	4-Bit Shift Register (74L195) Low Power	.79
93L01	16	1 of 10 Decoder (Low Power)	.49
9304	16	Dual Full Adder	.79
9312	16	8-Input Multiplexer (DM8312N)	.99
93L12	16	8-Input Multiplexer (Low Power)	.99
9316	16	4-Bit Binary Counter (74161)	.59
93L16	16	4-Bit Binary Counter (Low Power)	.89
9321	16	Dual 1 of 4 Decoder	.79
93L21	16	Dual 1 of 4 Decoder (Low Power)	.49
93L23	16	Quad 2-Input Multiplexer (Low Power) 81L23	1.19
9328	16	Dual 8-Bit Shift Register (N8277)	3.49
93L28	16	Dual 8-Bit Shift Register (Low Power)	$4.95
9334	16	8-Bit Addressable Latch (74259)	1.95
9368	16	FND 70 Driver/Latch	2.95
9374	16	LED Digital Driver	2.95
9401	14	TTL/LSI Cycle Redundancy Check (MC8503)	4.95
9601	14	Retriggerable Monostable Multivibrator (8601)	.59
9602	16	Dual Monostable Multivibrator (8602)	.75
96L02	16	Dual Monostable Multivibrator (Low Power)	1.49
96S02	16	Dual Monostable Multivibrator (Schottky)	1.95
96LS02	16	Dual Mono. Multivibrator (Low Power-Schottky)	1.95
93S151	16	8-Input Multiplexer	.69
93S158	16	Quad 2-Input Multiplexer (Inverter)	.69
93L421	16	256-Bit Tri-State RAM (Low Power) O.C.	1.95
93422	22	256x4-Bit Static RAM	5.95
93451	24	1024x8-Bit PROM (Tri-State) DM87S181N	2.95

SIGNETICS SERIES

N8000 SERIES

N8200	24	TTL Dual 5-Bit Buffer Register	$1.49
N8230	16	8-Bit Input Multiplexer (9312)	.69
N8235	16	2-Input 4-Bit Digital Multiplexer	2.95
N8242	14	Quad Exclusive-NOR Gate	1.49
N8250	14	Binary-to-Octal Decoder	.99
N8251	16	BCD-to-Decimal Decoder	.99
N8262	14	9-Bit Parity Generator/Checker	2.49
N8266	16	2-Input 4-Bit Multiplexer	2.49
N8267	16	2-Input 4-Bit Digital Multiplexer	3.95
N8270	14	4-Bit Shift Register (93178)	.99
N8271	16	4-Bit Shift Register (93179)	.99
N8273	16	10-Bit S-In P-Out Register	3.95
N8274	16	10-Bit P-In S-Out Register	3.95
N8275	16	Quad Bistable Latch	.99
N8277	16	Dual 8-Bit Shift Register (9328)	.99
N8291	14	Hi-Speed Preset. Binary Counter (74197)	.89
N8455	14	Dual 4-Input NAND Gate Drive	.99
N8471	14	Triple 3-Input NAND Gate Open Collector	.99
N8480	14	Quad 2-Input NAND Gate	.99
N8731	14	Quad 2-Input Diode Expander	.99
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N8808	14	8-Input NAND Gate	.89
N8815	14	Dual 4-Input NOR Gate	.99
N8826	14	Dual High Speed JK Binary	.99
N8828	14	Dual High Speed "D" Binary	.99
N8859	14	Dual 4-Input NAND Buffer	.99
N8875	14	Triple 3-Input NOR Gate	.55
N8879	14	Triple 3-Input NAND Gate	.99
N8881	14	Quad 2-Input NAND Gate	2.49
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SP SERIES

SP301	14	Quad 2-Input Expander	$ .99
SP306	14	Dual 3-Input AND Gate	.99
SP314	14	Single 7-Input NOR Gate	.99
SP322	16	Dual J-K Master/Slave Flip Flop	.99
SP328	14	Dual D-type Flip Flop	.99
SP333	14	Dual 3-Input OR Gate	.99
SP337	14	Dual 4-Input NAND Gate	.99
SP358	14	Quad 2-Input NAND Gate	.99
SP380	14	Quad 2-Input NOR Gate	1.75
SP629	14	SR/T Flip Flop	1.95
SP631	14	Quad 2-Input Expander	1.95
SP670	14	Triple 3-Input NAND Gate	1.95

N8H SERIES

N8H16	14	Dual 4-Input NAND Gate	$ .99
N8H21	14	Dual JK Binary Element	.99
N8H22	16	Dual JK Binary Element	.99
N8H80	14	Quad 2-Input NAND Gate	.99
N8H90	14	Hex Inverter	.99

N8T SERIES

N8T01	16	Nixie Decoder/Driver	$ .99
N8T10	16	Tri-State Quad D Bus Flip Flop	1.95
N8T13	16	Dual Line Driver (75121)	3.95
N8T20	16	Bi-Directional One-Shot	2.95
N8T22	14	Triggerable One-Shot (9601)	.99
N8T23	16	Dual Line Driver (75123)	1.49
N8T24	16	Triple Line Receiver (75124)	1.49
N8T26	16	Tri-State Quad Bus Transceiver (MC6880A)	1.29
N8T28	16	Quad Tri-State Line Driver (MC6889)	1.29
N8T34	16	Quad Tri-State Bus Transceiver (DM8834)	.99
N8T37	16	Hex Unified Bus Receiver (DS8837)	.99
N8T38	16	Quad Unified Bus Transceiver (DS8838)	1.29
N8T80	14	Quad 2-Input NAND Interface Gate	.99
N8T95	16	High Speed Hex Buffer Inverter	1.49
N8T96	16	High Speed Tri-State Hex Inverter	1.49
N8T97	16	High Speed Tri-State Hex Buffer	1.49
N8T98	16	High Speed Tri-State Hex Inverter	1.49
N8T380	14	Quad Bus Receiver with Hysteresis (DM8836)	.99

N82S SERIES

N82S10	16	1024x1 Bit RAM O.C. (93415)	$1.95
N82S23	16	256-Bit PROM O.C. (6330)	2.49
N82S25	16	64-Bit RAM (16x4 O.C.) 74S289 (3101)	3.95
N82S62	14	9-Bit Parity Generator & Checker	2.95
N82S100	28	Field Prog. Logic Array (16x48x8 T.S.) (93459)	12.95
N82S105	28	Bipolar Field Program. Logic Sequencer	17.95
N82S115	24	4096-Bit PROM (512x8 T.S.) 27S15	9.95
N82S123	16	256-Bit PROM (32x8 T.S.) 74S288	2.49
N82S126	16	1024-Bit PROM (256x4 O.C.) 74S387	2.49
N82S129	16	1024-Bit PROM (256x4 T.S.) 74S287	2.49
N82S130	16	2048-Bit PROM (512x4 O.C.) 74S570	3.95
N82S131	16	2048-Bit PROM (512x4 T.S.) 74S571	3.95
N82S137	18	4096-Bit PROM (1024x4 T.S.) 74S573	4.95
N82S147	20	4096-Bit PROM (512x8 T.S.)	4.95
N82S153	20	Field Programmable Logic Array (18x32x10)	5.95
N82S181	24	8192-Bit PROM (1024x8 T.S.) 87S181	6.95
N82S185	18	8192-Bit PROM (2048x4 T.S.) 87S185	6.95
N82S191	24	16,384-Bit PROM (2048x8 T.S.) 87S191	11.95

O.C. = Open Collector — T.S. = Tri-State

SHIFT REGISTERS

MM500H	TO-5/8	Dual 25-Bit Dynamic	$ .99
MM503H	TO-5/8	Dual 50-Bit Dynamic	.99
MM5013N	8	1024-Bit Dynamic/Accumulator	1.49
MM5027N	8	2048-Bit Dynamic	1.49
MM5056N	10	Dual 256-Bit Static	1.95
2502	16	256-Bit Dynamic (MM1402N)	1.49
2504V	8	1024-Bit Dynamic (1404A)	1.49
2522V	8	Dual 132-Bit Static	1.49
2524V	8	512-Bit Dynamic (AM2807)	1.49
2525V	8	1024-Bit Dynamic (AM2808)	1.49
2528V	8	Dual 250-Bit Static	1.95
2529V	8	Dual 240-Bit Static	1.95
2532N	16	Quad 80-Bit Static	1.95
3341PC	16	64 Word x 4-Bit FIFO Serial Mem. (AM3341)	4.95

NATIONAL 8000 SERIES

Part No.	Pins	Function	Price
DM8000N	14	Dual TTL/MOS Translator	$3.95
DM8091N	14	Quad 2-Input NAND Buffer	.49
DM8093N	14	Tri-State Quad Buffer (74125)	.55
DM8094N	14	Tri-State Quad Buffer (74126)	.75
DM8095N	16	Tri-State Hex Buffer (74365)	.69
DM8096N	16	Tri-State Hex Inverter (74366)	.75
DM8097N	16	Tri-State Hex Buffer (74367)	.69
DM8098N	16	Tri-State Hex Inverter (74368)	.69
DM8123N	16	Tri-State Quad 2-Input Multiplexer	1.49
DM8131N	16	6-Bit Comparator	2.79
DM8136N	16	6-Bit Comparator	2.79
DM8160N	16	6-Bit Comparator	2.79
DM8210N	14	8-Channel Digital Switch	.89
DM8211N	16	8-Channel Digital Switch	.89
DM8214N	16	Tri-State Dual 4/1 Multiplexer	1.49
DM8219N	24	Tri-State Version of 74150	1.49
DM8220N	14	Parity Generator/Checker	1.79
DM8230N	16	Tri-State Demultiplexer	.99
DM8300N	16	4-Bit Shift Register (74195) 9300N	.89
DM8520N	16	Modulo-N-Divider	5.95
DM8544N	16	Quad Contact-Bounce Eliminator	2.95
DM8546N	16	Tri-State 8-Bit Universal I/O Shift Register	2.95
DM8553N	16	Tri-State 8-Bit Latch	1.95
DM8601N	14	Retriggerable Mono. Multivibrator (9601N)	.59
DM8602N	16	Dual One-Shot (9602N)	.75
DM8613N	16	Quad Gated Flip-Flops	1.49
DS8626N	8	120MHz Divide-by-40 Prescaler	2.95
DS8629N	8	120MHz Divide-by-100 Prescaler	4.95

Part No.	Pins	Function	Price
DS8640N	14	Quad 2-In. Rec./No Hysteresis (SP380A)	$ .99
DS8641N	16	Quad 2-In. Transceiver/No Hysteresis (Hi-Speed)	1.49
DS8664N	24	14-Digit Decoder/Driver/Low Batt. Indicator	2.95
DS8665N	24	4-Digit Decoder/Driver (High Drive)	2.95
DS8666N	24	14-Digit Decoder/Driver (POS Systems)	2.95
DM8681N	14	Presettable Binary Counter	.99
DS8810N	14	Quad 2-Input TTL-MOS Interface Gate (7426)	.39
DS8811N	14	Quad 2-Input TTL-MOS Interface Gate	.49
DS8819N	14	Quad 2-Input TTL-MOS-Gate	.99
DS8820N	14	Dual Line Receiver (75182)	1.25
DS8830N	14	Dual Differential Line Driver (75183)	1.19
DS8834N	16	Quad Tri-State Transceiver (N8T34)	.99
DS8835N	16	Quad Tri-State Transceiver (Inverting)	2.25
DS8836N	14	Quad NOR Unified Bus Receiver (N8T380)	.99
DS8837N	16	Hex Unified Bus Receiver (N8T37)	1.49
DS8838N	16	Quad Unified Bus Transceiver (N8T38)	1.29
DS8856N	16	BCD to 7-Segment LED Driver (N8T51)	1.49
DS8864N	22	9-Digit MOS to LED Cathode Driver	.99
DS8865N	18	8-Digit MOS to LED Cathode Driver	.49
DS8867N	18	8-Seg. MOS to LED Anode Driver	1.49
DS8869N	16	Hex LED Lamp Driver (True)	1.19
DS8872N	22	9-Digit MOS to LED Cathode Driver	2.95
DS8877N	14	6-Digit LED Driver (50mA Sink) (Cathode)	1.19
DS8880N	16	High Volt 7-Segment Decoder/Driver (75480)	1.35
DS8884N	18	High Volt 7-Seg. Decoder/Driver (Panaplex)	1.95
DS8887N	18	8-In 8-Out Panaplex Anode Driver	1.39
DS8890N	14	TV Vert. Count Down	.49
DS8895N	16	Quad LED Segment Driver	.99

DTL, MECL MOTOROLA SERIES HTL, LINEAR

MC663P	14	Dual JK Flip Flop	$4.95
MC667P	14	Dual Monostable Multivibrator	4.95
MC830P	14	Dual 4-Input Gate (DM930N)	.79
MC832P	14	Dual 4-Input Buffer (DM932N)	.79
MC833P	14	Gate Expander (DM933N)	.79
MC835P	14	Hex Inverter	.79
MC836P	14	Hex Inverter (DM936N)	.79
MC844P	14	Dual 4-Input Gate (DM944N)	.99
MC845P	14	Clock Flip Flop (DM945N)	.99
MC846P	14	Quad 2-Input Gate (DM946N)	.99
MC848P	14	Clock Flip Flop (DM948N)	.99
MC849P	14	Quad 2-Input Gate (DM949N)	.99
MC851P	14	Monostable Multivibrator (SW951N)	1.49
MC853P	14	Dual JK Flip Flop (DM9093N)	1.49
MC855P	14	Quad JK Flip Flop (DM9097N)	1.49
MC856P	14	Dual JK Flip Flop (DM9094N)	1.49
MC857P	14	Quad Buffer (DM957N)	.99
MC861P	14	Quad 4-Input NAND/NOR Gate (DM961N)	.99
MC862P	14	Triple 3-Input Gate (DM962N)	.99
MC863P	14	Triple 3-Input NAND Gate (DM963N)	.99
MC1330A1	8	Low Level Video Detector	1.49
MC1349P	8	Video IF Amp (15V operation)	1.49
MC1350P	8	Video IF Amp (12V operation)	1.49
MC1372P	14	Color TV Video Modulator	2.49
MC1377P	20	Color TV RGB to PAL/NTSC Encoder	3.19
MC1398P	14	TV Color Processing Circuit	8.95
MC1408-7	16	8-Bit D to A Converter (DAC0807LCN)	1.49
MC1408-8	16	8-Bit D to A Converter (DAC0808LCN)	1.59
MC1648P	14	Voltage Controlled Oscillator	4.95
MC1801P	14	Dual 5-1 NAND Gate	1.49
MC1810P	14	Quad 2-Input NOR Gate	1.49
MC1818P	14	Quad 2-Input NAND Gate (Open Collector)	1.49
MC3310P	8	FM-IF Wide Band Amp	.89

MC3340P	8	Electronic Attenuator	$1.49
MC3346P	14	General Purpose Transistor Array	1.39
MC3419CL	18	Subscriber Loop Interface Circuit (SLIC)	9.95
MC3441AP	14	Quad Gen. Purp. Interface Bus Transceiver	2.95
MC3446N	16	Quad Interface Bus Transceiver	2.95
MC3450P	16	Quad MTTL Comp. Line Rec. w/Common 3-St. Strobe Input	2.95
MC3470P	18	Floppy Disk Read Amp System	1.95
MC3471P	20	Floppy Disk Write Controller/Head Driver	4.95
MC3479P	16	Biphase Stepper Motor Driver	4.79
MC3486P	16	Quad RS-422/423 Line Rec. w/3-State Outputs	1.69
MC3487P	16	Quad RS-422 Line Driver w/3-State Outputs	1.69
MC4024P	14	Dual Voltage Control Multivibrator (11C24)	2.95
MC4044P	14	Frequency Phase Detector (11C44)	2.95
MC10101P	16	Quad OR/NOR Gate	.59
MC10102P	16	Quad 2-Input NOR Gate	.59
MC10105P	16	Triple 2-3-2 Input OR/NOR Gate	.59
MC10107P	16	Triple 2-Input Exclusive OR/Exclusive NOR	.65
MC10114P	16	Triple Line Receiver	.65
MC10115P	16	Quad Line Receiver	.59
MC10116P	16	Triple Line Receiver	.59
MC10117P	16	Dual 2-Wide 2-3-Input OR-AND/OR-AND-INVERT Gate	.59
MC10121P	16	4-Wide OR-AND/OR-AND-INVERT	.65
MC10124P	16	Quad TTL-to-MECL Translator	1.49
MC10125P	16	Quad MECL-to-TTL Translator	1.49
MC10131P	16	Dual Type D Master-Slave Flip-Flop	1.69
MC10135P	16	Dual J-K Master-Slave Flip-Flop	1.69
MC14410P	16	2-of-8 Tone Encoder	8.95
MC14411P	24	Bit Rate Frequency Generator	8.95
MC14412P	16	Universal Low-Speed Modem	6.95
MC14433P	24	3½ Digit A/D Converter	7.95
MC14490P	16	Hex Contact Bounce Eliminator	4.49
MC14495P	16	BCD to 7-Seg, Hex. Latch/Decoder/Driver	2.95
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TK2	KXNA-K4434DZ	44pF	.79μH	27MHz	55	$1.39
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TK4	RMC-202313NO	180pF	.64μH	455KHz	110	$1.49
TK5	RMC-402503NO	180pF	.64μH	455KHz	110	$1.49
TK6	RMC-502182NO	180pF	.64μH	455KHz	110	$1.49
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TK8 (RAN-10A6729EK)	YAN-60027N	–––	600μH	200KHz	95	$1.39

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'S CROSS-REFERENCE GUIDE FOR RAMS, PROMS and EPROMS

	National Semiconductor	Access Time NS	Pins	Org.	AMD	FSC	FUJ	HAR	HIT	INT	MIT	MMI	MOSTEK	MOT	NEC	SIG	SYN	TI	TOSH
STATIC RAMS	MM1101N	1000	16	256x1	1101A					1101A			MK4007			2501			
	MM2101A	350	22	256x4	2101A	3538		HM6501		P2101A					UPD2101A	2101A	SY2101		
	MM2101A-2	250	22	256x4	2101-1					P2101A-2					UPD2101AL	2101A-2			
	MM2101A-4	450	22	256x4	2101-2	3538-1	MB8101			P2101A-4					8101	2101A-4			
	MM2102AN	350	16	1024x1	9102CPC	2102FPC				P2102A					UPD2102A	21F02	SYP2102A		
	MM2102AN-2	250	16	1024x1	9102DPC	2102HPC				P2102A-2						21F02-2			
	MM2102AN-4	450	16	1024x1	9102BPC	2102IPC				P2102A-4			MK4102		UPD2102	21F02-4		TMS4033	TM313
	MM2102AN-L	350	16	1024x1	91L02CPC	21L02FPC				P2102AL						21L02			
	MM2102AN-2L	250	16	1024x1	81L02APC	21L02HPC				P2102AL-2									
	MM2102AN-4L	450	16	1024x1	91L02BPC	21L02IPC				P2102AL-4					21L02-1	SYP21L02B			
	MM2111N	450	18	256x4	9111		MB8111			P2111A-4				M6811	UPD2111A	2111	SY2111	TMS4042-2	TM311
	MM2112N	450	16	256x4	9112					P2112A-4						2112	SY2112	TMS4043-2	TM312
	MM2114N	450	18	1024x4	9114BPC	2114			HM472114A-4	P2114	M5L2114		MK4114-5	MCM2114P45	UPD2114	2614-45	SY2114	TMS4045-45	TM314A
	MM2114N-2	200	18	1024x4	9114EPC	2114-2	MB8114E		HM472114A-2	P2114A-4			MK4414-3	MCM2114P20	2114-2	2614-20	SY2114-2	TMS4045-20	TMM314A-1
	MM2114N-L	450	18	1024x4	91L14BPC	2114L			HM472114-4	P2114L				MCM2L14P45	UPD2114L			TMS40L45-45	TMM314AL
	MM2114N-2L	200	18	1024x4	91L14EPC	2114L-2	MB8114EL			P2114AL-4				MCM2L14P20	UPD2114L-3		SY2114L-2	TMS40L45-20	TMM314AL-1
	MM2141N-3	150	18	4096x1						P2141-3									
	MM2147N	70	18	4096x1	9147-70		MBM2147E		HM4847	P2147H			MK2147N-70	M2147P70	UPD2147D2		SY2147	TMS2147-7	TM315D
	NMC2148N	70	18	1024x4	9148-70	93475	MBM2148		HM6148	P2148H							SY2148		
	MM5257N	450	18	4096x1	4044-45		MBM4044			P2141				M2141P45	UPD4104	2613-45		TMS4044-45N	
	*HM6116P-2	120	24	2048x4			MB8416A-12	HM65162	HM6116P-2					MCM6116-12					
	*HM6116LP-2	120	24	2048x8			MB8416A-12L		HM6116LP-2					MCM61L16-12					
	*HM6116P-3	150	24	2048x8			MB8416A-15		HM6116P-3		M5M5116P-15			MCM6116-15					
	*HM6116LP-3	150	24	2048x8			MB8416A-15L		HM6116LP-3					MCM61L16-15					
	*HM6116P-4	200	24	2048x8		F3528	MB8416	HM6116	HM6116P-4		M5M5116P			MCM6116-20	UPD446		SY2128	TMS4016	TC5517A
	*HM6264P-15	150	28	8192x8			MB8464-15		HM6264P-15		M5M5165P-15				UPD4364-15				TC5564-1
	DM7489N	60	16	16x4	3101	7489			HD7489	P3101		6550		M4064	UPD2089	74S89		7489	
	MM74C920	250	22	256x4	5101			HM6551-9	HM435101	P5101L				M145101	UPD5101				TC5101
	MM74C930	250	18	1024x1			MB8411	HM6518-5											
	DM74S189N	35	16	16x4	27S03	93405			74S189			6561				74S189		74S189	
	DM74S289N	35	16	16x4	27S02	93404			74S289	3101A		6560			UPB2289	82S25		74S289	
DYN RAMS	MM5270N	250	18	4096x1	9050							2170			UPD418-1	2660	SY5270	TMS4050	
	MM5261N	300	18	1024x1		F1103				P1103						1103-1			
	MM5280N	200	22	4096x1	9060	93454	MB8107H			P2107B		2180		M6605AL	UPD411A-2	2680	SY5280	TMS4060-2	
	MM5290N-2	150	16	16,384x1	AM9016FPC	F16K-2PC	MB8116H		HM4716A-2	P2117-2			MK4116N-2	M4116P-15	UPD416C-3	2690-2		TMS4116N-15	TMM416P-2
	MM5290N-3	200	16	16,384x1	9016EPC	F16K-3PC	MB8116E		HM4716A-3	P2117-3			MK4116N-3	M4116P-20	UPD416C-2	2690-3		TMS4116N-20	TMM416P-3
	MM5290N-4	250	16	16,384x1	9016DPC	F16K-4PC	MB8116N		HM4716A-4	P2117-4			MK4116N-4	M4116P-25	UPD416C-1	2690-4		TMS4116N-25	TMM416P-4
	MM5298N	200	16	8192x1						P2109			MK4108					TMS4108-20	
	*4128	200	16	131,072x1					HM48128P-2				MK4128N-20	MCM66128L20				TMS41128A-20NL	
	NMC4164N-15	150	16	65,536x1		F64K-15	MB8264-15		HM4864-2	P2164A-15	M5K4164ANP-15		MK4564-15	MCM6665-15	UPD4164-3			TMS4164-15	TMM4164
	NMC4164N-20	200	16	65,536x1		F64K-20	MB8264-20N		HM4864-3	P2164A-20	M5K4164ANP-20		MK4564-20	MCM6665-20	UPD4164-2		TMS4164-20	TMM4164C-4	
	*TMM41256C-15	150	16	262,144x1			MB81256-15		HM50256-15		M5M4256P-15			MCM6256-15	UPD41256-15			TMS4256-15	TMM41256C-15
	*TMM41256C-20	200	16	262,144x1			MB81256-20		HM50256-20		M5M4256P-20			MCM6256-20	UPD41256-20			TMS4256-20	TMM41256C-20
	*41464-15	150	18	65,536x4			MB81464		HM50464P-15		M5M4464P				UPD41464C			TMS4464	TMM41464P-15
EPROMS	MM1702A	850	24	256x8	1702A					1702A			MK3702			1702			
	MM2708Q	450	24	1024x8	AM2708	F2708	MB8518H		HN462708	D2708			MK2708	2708	UPD2708	2708		TMS2708-45	TMM322
	MM2716Q	450	24	2048x8	AM2716	F2716	MBM2716		HN462716	D2716			MK2716-8	MCM2716	UPD2716		SY2716	TMS2516	TMM323D
	MM2716-1	350	24	2048x8	AM2716-1	F2716-1	MBM2716H	HM6716-9		D2716-1			MK2716-6	MCM2716-35			SY2716-1	TMS2516-35	TMM323D-1
	NMC2532Q	450	24	4096x8					HN462532					MCM2532				TMS2532	
	NMC2732Q	450	24	4096x8	AM2732DC		MBM2732		HN462732G	D2732					D2732D				TM2732D
	*2732A-45	450	24	4096x8	AM2732A-45					D2732A-4								TMS2732AJL-45	
	*2732A-25	250	24	4096x8	AM2732ADC		HBM2732A-25		HN482732AG-25	D2732A					D2732A				
	*2764-4	450	28	8192x8	AM2764-45				HN482764G-4	D2764-4			MK2764		D2764-4			TMS2764JL-45	
	*2764-25	250	28	8192x8	AM2764DC		MBM2764-25		HN482764G	D2764	M5L2764K				D2764			TMS2764JL-25	TMM2764D
	*27128-25	250	28	16,384x8	AM27128DC		MBM27128-25		HN4827128G-25	D27128	M5L27128K				D27128			TMS27128JL-25	TMM27128D
	*27256-25	250	28	32,768x8	AM27256DC		MBM27256-25		HN4827256G-25	D27256					D27256				TC57256-25
	*27512-25	250	28	65,536x8	AM27512-25		MBM27512		HN27512	D27512	M5L27512				MP27C512				TMM27512
PROMS	DM74S188N	35	16	32x8	27S18		MB7111	HM7602				6330-1				82S23		TBP18SA030N	
	DM74S287N	50	16	256x4	27S21	93427	MB7114	HM7611		3621		6301-1				82S129		TBP24S10	
	DM74S288N	35	16	32x8	27S19		MB7112	HM7603				6331-1				82S123		TBP18S030N	
	DM74S387N	50	16	256x4	27S20	93417	MB7113	HM7610		3601-1		6300-1	MK4006		UPB403	82S126		TBP24SA10	
	DM74S471N	50	20	256x8								6309-1						TBP28L22N	
	DM74S472N	60	20	512x8	27S29		MB7124	HM7649				6349-1				82S147		TBP28S42N	
	DM74S473N	60	20	512x8	27S28		MB7123	HM7648				6348-1				82S146		TBP28SA42	
	DM74S474N	65	24	512x8	27S31	93448		HM7641		3624		6341-1			UPB425	82S141		TBP28S46	
	DM74S475N	65	24	512x8	27S30	93438		HM7640		3604		6340			UPB405	82S140		TBP28SA46	
	DM74S570N	55	16	512x4	27S12	93436	MB7115	HM7620		3602		6305-1				82S130			
	DM74S571N	55	16	512x4	27S13	93446	MB7116	HM7621		3622		6306-1				82S131			
	DM74S572N	60	18	1024x4	27S32	93452	MB7121	HM7642		3605		6352-1			UPB406	82S136		24SA41	
	DM74S573N	60	18	1024x4	27S33	93453	MB7122	HM7643		3625		6353-1			UPB426	82S137		24S41	
	DM87S180N	40	24	1024x8	27S180	93450	MB7131	HM7680		3608		6380-1			UPB408	82S180		28SA86	
	DM87S181N	40	24	1024x8	27S181	93451	MB7132	HM7681		3628		6381-1			UPB428	82S181		24S86	
	DM87S184N	40	18	2048x4	27S184	93514	MB7127	HM7684				63S840				82S184		24SA81	
	DM87S185N	40	18	2048x4	27S185	93515	MB7128	HM7685				63S841				82S185		24S81	
	DM87S190N	40	24	2048x8	27S190		MB7137	HM7616D		3606		63S1680				82S190		28SA166	
	DM87S191N	40	24	2048x8	27S191		MB7138	HM7616I		3636		63S1681				82S191		28S166	
	*82S115	60	24	512x8	27S15			HM7647R							UPB425	82S115			

*NOT NSC'S PART NUMBER.

This listing is based on manufacturer's current data. For your requirements, we recommend consulting manufacturer's Data Sheets before designing into your circuit.

MEMORIES, MICROPROCESSORS & DIGITALKER™

STATIC RAMS

Part No.	Pins	Function		Price
2016-10	24	2048x8	100ns	$2.25
2016-12	24	2048x8	120ns	1.69
2064-12	28	8192x8	120ns	7.95
2101	22	256x4	450ns (8101)	1.95
2102	16	1024x1	350ns	.89
2102-2L	16	1024x1	250ns Low Power (91L02)	1.95
2111	18	256x4	450ns (8111)	2.49
2112	16	256x4	450ns MOS	2.49
2114N	18	1024x4	450ns	.99
2114N-2	18	1024x4	200ns	1.05
2114N-L	18	1024x4	450ns Low Power	1.09
2114N-2L	18	1024x4	200ns Low Power	1.49
21C14	18	1024x4	200ns (CMOS)	.49
2116N-25L	24	2048x8	250ns LP NMOS	3.49
2125A	16	1024x1	45ns (High Speed)	4.95
2147HN	18	4096x1	70ns	2.95
2147HN-3	18	4096x1	55ns	3.25
2148HN	18	1024x4	70ns	3.95
2148HN-3	18	1024x4	55ns	4.25
2149	18	1024x4	55ns	4.95
27LS00	16	256x1	80ns (74S200)	2.95
TMS40L47-45	20	1024x4	450ns	.99
5101	22	256x4	450ns (CMOS)	1.95
MM5257N	18	4096x1	450ns	2.95
6116P-2	24	2048x8	120ns (16K) CMOS	2.75
6116P-3	24	2048x8	150ns (16K) CMOS	1.89
6116P-4	24	2048x8	200ns (16K) CMOS	1.85
6116LP-2	24	2048x8	120ns (16K) LP CMOS	2.95
6116LP-3	24	2048x8	150ns (16K) LP CMOS	1.95
6116LP-4	24	2048x8	200ns (16K) LP CMOS	1.89
6264P-12	28	8192x8	120ns (64K) CMOS	3.89
6264P-15	28	8192x8	150ns (64K) CMOS	3.59
6264LP-12	28	8192x8	120ns (64K) LP CMOS	4.25
6264LP-15	28	8192x8	150ns (64K) LP CMOS	3.75
6514	18	1024x4	350ns (CMOS) (UPD444C) (TC5514)	4.49
7489	16	16x4	50ns (P3101)	2.05
74C920	22	256x4	250ns	9.95
74C921	18	256x4	250ns	9.95
74C930	18	1024x1	250ns	9.95
74S189	16	16x4	35ns (93405)	1.69
74S289	16	16x4	35ns (P3101A)	1.95
82S10	16	1024x1	50ns O.C. (93415)	1.95
82S25	16	16x4	50ns O.C. (74S289)	3.95
43256-12L	28	32,768x8	120ns (256K) Low Power	26.95
43256-15L	28	32,768x8	150ns (256K) Low Power	24.95

DYNAMIC RAMS

MK4027N-4	16	4096x1	250ns (UPD414)	$ .89
4116-15	16	16,384x1	150ns (MM5290N-2)	.89
4116-20	16	16,384x1	200ns (MM5290N-3)	.69
4116-25	16	16,384x1	250ns (MM5290N-4)	.55
4128-20	16	131,072x1	200ns (Piggyback)	4.49
4164-120	16	65,536x1	120ns	1.75
4164-150	16	65,536x1	150ns	1.15
4164-200	16	65,536x1	200ns	.95
TMS4416-12	18	16,384x4	120ns	4.25
TMS4416-20	18	16,384x4	200ns	3.25
MM5261N	18	1024x1	300ns	.25
MM5262N	22	2048x1	365ns	.25
MM5270N	18	4096x1	250ns	1.95
MM5280N	22	4096x1	200ns (P2107B) TMS 4060	1.95
MM5298N-3A	16	8192x1	(Lower ½ of 4116-25)	.29
8118	16	16,384x1	120ns	.69
41256-120	16	262,144x1	120ns	3.95
41256-150	16	262,144x1	150ns	2.95
50464-15	18	65,536x4	150ns (41254) (41464)	4.95

EPROMS

Part No.	Pins	Function		Price
1702A	24	256x8	2K (1μs)	$6.95
TMS2516	24	2048x8	16K 450ns (25V)	4.95
TMS2532	24	4096x8	32K 450ns (25V)	5.95
TMS2564	28	8192x8	64K 450ns (25V)	8.95
2708	24	1024x8	8K 450ns	4.95
TMS2716	24	2048x8	16K 450ns (−5V, +5, +12V)	9.95
2716	24	2048x8	16K 450ns (25V)	3.75
2716-1	24	2048x8	16K 350ns (25V)	4.95
27C16	24	2048x8	16K 450ns (25V) CMOS	6.49
2732	24	4096x8	32K 450ns (25V)	3.95
2732A-20	24	4096x8	32K 200ns (21V)	4.25
2732A-25	24	4096x8	32K 250ns (21V)	3.95
2732A-45	24	4096x8	32K 450ns (21V)	3.75
27C32	24	4096x8	32K 450ns (25V) CMOS	6.49
2758	24	1024x8	8K 450ns (Single +5V)	3.95
2764-20	28	8192x8	64K 200ns (21V)	4.25
2764-25	28	8192x8	64K 250ns (21V)	3.75
2764-45	28	8192x8	64K 450ns (21V)	3.49
2764A-25	28	8192x8	64K 250ns (12.5V)	4.25
2764A-45	28	8192x8	64K 450ns (12.5V)	3.95
27C64	28	8192x8	64K 450ns (21V) CMOS	5.49
27128-25	28	16,384x8	128K 250ns (21V)	4.25
27128A-25	28	16,384x8	128K 250ns (12.5V)	4.95
27C128-25	28	16,384x8	128K 250ns (21V) CMOS	5.95
27256-25	28	32,768x8	256K 250ns (12.5V)	5.95
27C256-25	28	32,768x8	256K 250ns (12.5V) CMOS	8.95
27512-25	28	65,536x8	512K 250ns (12.5V)	19.95
68764	24	8192x8	64K 450ns (25V)	15.95
68766	24	8192x8	64K 350ns (25V)	16.95
EWC-1	½" x ¾" Rectangular EPROM Window Covers (42 ea. Labels)			1.49

EEPROMS

2816A	24	2048x8	16K 350ns (9V-15V) 5V **Read/Write**	$5.95
2817A	24	2048x8	16K 350ns 5V **Read/Write**	8.95
52B13	24	2048x8	16K 350ns (21V) 5V Read Only	1.95
9864DC	28	8192x8	64K 250ns 5V **Read/Write**	14.95

PROMS

5300-1J	16	256x4	O.C.	$2.95
6331-1J	16	32x8	T.S.	2.95
74S188	16	32x8	O.C. (TBP18SA030N)	1.29
74S287	16	256x4	T.S. (TBP24S10N)	1.49
74S288	16	32x8	T.S. (TBP18S030N)	1.49
74S387	16	256x4	O.C. (TBP24SA10N)	1.29
74S471	20	256x8	T.S. (TBP28L22N)	4.95
74S472	20	512x8	T.S. High Speed	2.95
74S473	20	512x8	O.C. (TBP28SA42N)	2.95
74S474	24	512x8	T.S. (TBP18S46)	2.95
74S475	24	512x8	O.C.	2.95
74S476	18	1024x4	T.S. (TBP24S41) 4K-Bit	5.95
74S571	16	512x4	T.S.	2.49
74S573	18	1024x4	T.S.	2.95
DM87S184N	18	2048x4	O.C. (82S184)	4.95

ROMS

2513(CGR001)	24	Character Generator Upper Case (2140)	$6.95
2513(CGR005)	24	Character Generator Lower Case (3021)	6.95
MCM66750P	24	128x9x7 Alpha. Control Char. Gen. (MC6575)	12.95

COMMODORE CUSTOM ROMS — See Page 82

NEW!! NEC 32Kx8 STATIC RAM

NEC

Description

The μPD43256 is a hi-speed, low-power, 32,768-word by 8-bit static MIX-MOS RAM fabricated with advanced silicon gate MIX-MOS technology. The μPD43256 is a low standby power device using n-channel memory cells with polysilicon resistors. A novel circuitry technique makes the μPD43256 a hi-speed and low operating power device which requires no clock or refreshing to operate. Minimum standby power is drawn by this device when $\overline{CS}$ is at high level, independently of the other inputs' levels. Data retention is guaranteed at a power supply voltage as low as 2V (μPD43256-12L/15L). The μPD43256C is packaged in a standard 28-pin plastic dual-in-line package.

Features: • Single +5V supply • Fully static operation-no clock or refreshing required • TTL-compatible-all inputs and outputs • Common I/O using three-state output • One Chip Select and one Output Enable input for easy application

Part No.	Pins	Function		Price
43256-12L	28	32,768x8	120ns (256K) Low Power	$26.95
43256-15L	28	32,768x8	150ns (256K) Low Power	$24.95

NEC V20 AND V30 CHIPS

Replace the 8086 or 8088 in your IBM-PC and Increase its Speed by up to 40%!

Part No.	Pins	Function	Price
UPD70108-5	40	(5MHz) V20 Chip (Replaces the 8088)	$ 9.95
UPD70108-8	40	(8MHz) V20 Chip (Replaces the 8088-2)	$11.95
UPD70116-8	40	(8MHz) V30 Chip (Replaces the 8086 or 8086-2)	$14.95
UPD70116-10	40	(10MHz) V30 Chip (Replaces the 8086 or 8086-2)	$34.95

INTEL 8Kx8 INTEGRATED RAM

intel

Description

The Intel 2187 is an 8192-word by 8-bit integrated random access memory (iRAM) fabricated on Intel's proven HMOS dynamic RAM technology. The 2187 is particularly suited for use in microcontroller applications, incorporating many requisite system features. These include low power dissipation, automatic initialization, extended cycle operation and two-line bus control to eliminate bus contention.

Features: • Low-cost, high-volume HMOS technology • Hi-density one transistor cell • Single +5V ± 10% supply • Proven HMOS reliability • Low active current (70mA) • Simple synchronous refresh operation • 2764 EPROM compatible pin-out • Two-line bus control • Low standby current (20mA)

D2187A-25 (250ns). **$1.95**

DT1050 Digitalker™

Applications: Teaching Aids • Appliances • Clocks
Automotive • Telecommunications • Language Translations

The DT1050 is a standard DIGITALKER kit encoded with 137 separate and useful words, 2 tones, and 5 different silence durations. The words and tones have been assigned discrete addresses, making it possible to output single words or words concatenated into phrases or sentences. The "voice" output is a highly intelligible male voice. Vocabulary is chosen so that it is applicable to many products and markets.

The DT1050 consists of a Speech Processor Chip, MM54104 (40-pin) and two (2) Speech ROMs, MM52164SSR1 and MM52164SSR2 (24-pin) along with a Master Word List and a recommended schematic diagram on the application sheet.

Part No.	Description	Price
DT1050	**Digitalker™** (3 Chips and Data)	**$24.95**
MM54104	Speech Processor Chip	$12.95
CY4A	Required 4MHz Crystal for System Timing	$ 1.19
DT1057	Expands DT1050's vocabulary from 137 to 260+ words (incl. 2 ROMs & specs)	$11.95

MICROPROCESSORS & MISCELLANEOUS COMPONENTS

5000, 50000 SERIES

Part No.	Pins	Function	Price
TP5088N	14	DTMF Generator for Binary Data	$2.49
TCM5089N	16	Integrated Tone Dialer	1.95
MM5309	28	6-Digit with Reset Clock Chip	6.95
MM5311	28	6-Digit with BCD Clock Chip	6.95
MM5312	24	4-Digit Any Readout Clock Chip	6.95
MM5314	24	6-Digit LED/Incandescent Readout Clock Chip	4.95
MM5316	40	Alarm Set/Snooze Alarm Timer Clock Chip	9.95
MM5321N	16	TV Camera Sync. Generator	11.95
MM5369AA/N	8	Programmable Oscillator/Divider (60Hz)	1.79
MM5369EST	8	Programmable Oscillator/Divider (100Hz)	1.95
MM5371N	28	Digital Alarm Clock	4.95
MM5378	18	Digital Auto Clock — VF	1.95
MM5387	40	4-Digit Alarm Clock-Direct LED Drive (1998/3817)	4.95
MM5402	40	Digital Alarm Clock — LED	4.95
MM5430N	40	AM/FM Radio Frequency Display	4.95
MM5450N	40	34-Segment LED Display Driver	3.95
MM5452N	40	32-Segment LCD Display Driver	3.95
MM5725	28	8-Digit 4-Function Calculator Chip	.99
MSM5832RS	18	Microprocessor Real Time Clock/Calendar	2.95
MK50240N	16	Top Octave Frequency Generator	7.95
MK50250	28	4/6 Digit Alarm with Snooze & AM/PM (Clock)	6.95
TP50981AN	16	Push Button Pulse Dialer	1.49
MM52116FKW	24	Character Generator (128 Characters)	2.95
MM53130N	18	Touch Tone Dialer	4.95
MM53190N	20	Push Button Pulse Dialer	3.95
MM53200N	18	Digital Code Trans/Rec. (Garage Door Type)	4.95
MM54104N	40	Speech Processor Chip	12.95
MM54240N	24	Asynchronous Transmitter/Receiver	5.95
MM55121N	16	Phase Locked Loop Freq. Syn. (Serial Data)	3.95
MM57103DWA/N	28	Scientific Calculator Circuit	1.95
MM58167AN	24	Microprocessor Real Time Clock	9.95
MM58174AN	16	Microprocessor Compatible Clock	9.95
MM58274N	16	Microprocessor Compatible Real Time Clock	9.95
MSM58321RS	16	Microprocessor Real-Time Clock/Calendar (CMOS)	6.95

MISCELLANEOUS CIRCUITS

TMS0128NC	28	4-Bit Microcomputer Calculator Chip	$ .99
COP402N	40	Microcontroller with 64-digit RAM & Direct LED Drive	7.95
BR1941M	18	Dual Baud Rate Generator (COM5016)	2.95
CDP1802CE	40	CPU 2.5MHz	4.95
AM26S02PC	16	Schottky Dual Retriggerable, Resettable Mono. Multi.	3.95
2661-3	28	Enhanced Prog. Communications Interface	5.95
AM2812DC	28	32x8 First In/First Out Memory	6.95
AM2907PC	20	Quad Bus Transceiver w/Interface Logic	3.95
AM2916APC	24	Quad Bus Transceiver with Interface Logic, Tri-State	1.49
D3242	28	Address Multiplexer & Refresh Counter	6.95
AM3705D	16	8-Channel Multiplexer	2.95
TMS4500A-15NL	40	8K to 64K Dynamic RAM Controller	16.95
76477	28	Complex Sound Generator	5.95
76489	16	Sound Generator Controller	6.95
TMS99532NL	18	FSK Modem-Bell 103 Comp. (300 Bits/s)	9.95
MC146818	24	Real Time Clock Plus RAM	5.95
AY-3-8500-1	28	TV Game Chip & Crystal (2.01MHz)	2.95

CONVERTERS

DAC-08HQ	16	8-Bit Hi-Speed Multiplying D/A Converter	$4.95
ADC0800PCD	18	8-Bit A/D Converter (±1 LSB)	13.95
ADC0801LCN	20	8-Bit A/D Converter (¼ LSB)	13.49
ADC0803LCN	20	8-Bit A/D Converter (±½ LSB)	4.95
ADC0804LCN	20	8-Bit A/D Converter (1 LSB)	3.19
ADC0808CCN	28	8-Bit A/D Converter w/8-Channel Analog	5.95
ADC0809CCN	28	8-Bit A/D Converter (8-Channel MPX)	3.95
ADC0816CCN	40	8-Bit A/D Converter w/16-Channel Analog	14.95
ADC0817CCN	40	8-Bit A/D Converter (16-Ch. MPX) (74C948-1)	8.95
ADC0832BCN	8	8-Bit Serial I/O A/D Conv. (2,4 or 8-Channel Mult.)	7.95
DAC0800LCN	16	8-Bit D/A Converter (±1 LSB)	2.49
DAC0806LCN	16	8-Bit D/A Converter (0.78% Lin.) (MC1408P6)	1.49
DAC0807LCN	16	8-Bit D/A Converter (MC1408P7)	1.49
DAC0808LCN	16	8-Bit D/A Converter (MC1408P8)	1.95
DAC0830LCN	20	8-Bit UP D/A Converter (.05% Linear)	5.95
DAC0831LCN	20	8-Bit UP D/A Converter (.10% Linear)	4.95
DAC1000LCN	24	10-Bit D/A Conv. Micro. Comp. (.05%)	7.95
DAC1008LCN	20	8-Bit D/A Conv. Micro. Comp. (.20%)	6.49
DAC1020LCN	16	10-Bit D/A Converter (0.05% Lin.)	6.95
DAC1022LCN	16	10-Bit D/A Converter (0.20% Lin.)	4.95
DAC1222LCN	18	12-Bit D/A Converter (0.20% Lin.)	5.95
DAC1230LCJ	20	12-Bit UP D/A Converter (.012%)	13.95
AD7523JN	16	8-Bit Multiplying D/A Converter	4.95

CRT, VIDEO & GRAPHICS DISP. CONTROLLER CHIPS

SCN2674B	40	Advanced Video Display Controller (C4N40)	$14.95
6545-1	40	CRT Controller (CRTC)	2.49
6845	40	CRT Controller (CRTC)	2.95
68B45	40	CRT Controller(CRTC) 2MHz	4.95
UPD7220D	40	Graphics Display Controller	14.95
8275	40	Programmable CRT Controller	16.95

DISK DRIVE FORMATTER/CONTROLLER CHIPS

Part No.	Pins	Function	Price
D765AC	40	Single/Double Density Floppy Disk Cont. (8272)	$4.49
1771N-1	40	Floppy Disk Controller (FD1771)	3.95
1791	40	Single/Double Density (Inverted) (Int. Clk. Div.)	9.95
1793	40	Single/Double Density (True) (Int. Clk. Div.)	9.95
1797	40	Single/Double Density Side Select (True)	3.95
2791	40	Single/Double Density (Inv.) (Int. Clk. Div.)	19.95
2797	40	Single/Double Density Side Select (True)	19.95
MC3470P	18	Floppy Disk Read Amp System	1.95
MC3471P	20	Floppy Disk Write Controller/Head Driver	4.95
MC3479P	16	Bi-Phase Stepper Motor Driver	4.79
6843	40	Programmable Floppy Disk Controller	2.95
8272	40	Single/Double Density Floppy Disk Cont. (D765AC)	4.49

UART'S

TR1602B	40	40K Baud UART	$4.49
2651	28	Communication Chip (USART)	4.95
8250	40	ACE (IBM PC or XT Software Compatible)	6.95
8250B	40	ACE (IBM PC or XT Software Compatible)	6.95
8251A	28	Programmable Comm. I/O (USART)	1.75
NS16450N	40	ACE (IBM-AT Software Compatible)	11.95
AY-3-1015D	40	25K BAUD UART	4.95
AY-5-1013A	40	40K BAUD UART	3.95

GENERATORS

LM566CN	8	Function Generator	$1.19
BR1941M	18	Dual Baud Rate Clock Generator (Com. 5016)	2.95
WD1943M	18	Dual Baud Rate Clock Generator (with Prog. Divider)	4.95
XR2206	16	Monolithic Function Generator	3.95
WD2143M-03	18	Four Phase Clock Generator	6.95
MC4024P	14	Dual Voltage Control Multivibrator	2.95
4702	16	Baud Rate Generator	4.95
MM5321N	16	TV Camera Sync. Generator	11.95
6847	40	Video Display Generator	4.95
6875	16	Two-Phase Clock Generator/Driver	8.95
8038CCJD	14	Precision Wave Form Generator	3.95
8116	18	Dual Baud Rate Clock Generator (with Prog. Divider)	4.95
MC14411P	24	Bit Rate Frequency	8.95
AY-3-8910	40	Prog. Sound Generator with Two 8-Bit I/O Ports	5.95
AY-3-8912	28	Prog. Sound Generator with One 8-Bit I/O Port	5.75
MM52116FKW	24	Character Generator (128 Characters)	2.95

TELEPHONE/KEYBOARD CHIPS

74C922	18	Keyboard Encoder (16 Keys) (INS8245N)	$3.95
74C923	20	Keyboard Encoder (20 Keys) (INS8246N)	3.95
HD-1-0165-5	24	Keyboard Encoder (16 Keys)	14.95
KR3600-PRO	40	Keyboard Encoder (90 Keys) Programmable	10.95
TCM5089N	16	Integrated Tone Dialer	1.95
TP50981AN	16	Push Button Pulse Dialer	1.49
AY-5-2376	40	Keyboard Encoder (88 Keys) (KR2376)	9.95
MM53130N	18	Touch Tone Dialer	4.95
MM53190N	20	Push Button Pulse Dialer	3.95

Z80, Z80A, Z80A (CMOS), Z80B, Z8000 SERIES

Z80-2.5MHz

Z80	40	CPU (MK3880N)(780C)	$1.25
Z80-CTC	28	Counter Timer Circuit (MK3882)	1.79
Z80-DART	40	Dual Asynchronous Receiver/Transmitter	4.95
Z80-DMA	40	Direct Memory Access Circuit (MK3883)	4.95
Z80-PIO	40	Parallel I/O Interface Controller (MK3881)	1.79
Z80-SIO/0	40	Serial I/O (TxCB & RxCB Bonded) (MK3884)	4.95
Z80-SIO/1	40	Serial Input/Output (Lacks DTRB) (MK3885)	4.95
Z80-SIO/2	40	Serial Input/Output (Lacks SYNCB) (MK3887)	4.95
Z80-SIO/9	40	Serial Input/Output	4.95

Z80A-4MHz

Z80A	40	CPU (MK3880N-4) (780C-1)	$1.35
Z80A-CTC	28	Counter Timer Circuit (MK3882-4)	1.49
Z80A-DART	40	Dual Asynchronous Receiver/Transmitter	4.95
Z80A-DMA	40	Direct Memory Access Circuit (MK3883-4)	5.95
Z80A-PIO	40	Parallel I/O Interface Controller (MK3881-4)	1.49
Z80A-SIO/0	40	Serial I/O (TxCB & RxCB Bonded) (MK3884-4)	4.95
Z80A-SIO/1	40	Serial I/O (Lacks DTRB) (MK3885-4)	4.95
Z80A-SIO/2	40	Serial I/O (Lacks SYNCB) (MK3887-4)	4.95
Z80A-SIO/9	40	Serial Input/Output	5.25

Z80A (CMOS)-4MHz

Z84C00-4	40	CPU (Z84C0004PEC)	$3.95
Z84C10-4	40	Direct Memory Access (Z84C1004PEC)	14.95
Z84C20-4	40	Parallel I/O Interface Controller (Z84C2004PEC)	3.95
Z84C30-4	28	Counter Timer Circuit (Z84C3004PEC)	3.95
Z84C40-4	40	Serial I/O (TxCB & RxCB Bonded) (Z84C4004PEC)	11.95
Z84C41-4	40	Serial I/O (Lacks DTRB) (Z84C4104PEC)	11.95
Z84C42-4	40	Serial I/O (Lacks SYNCB) (Z84C4204PEC)	11.95

Z80B-6MHz

Z80B	40	CPU (MK3880N-6)	$2.95
Z80B-CTC	28	Counter Timer Circuit (MK3882-6)	3.49
Z80B-DART	40	Dual Asynchronous Receiver/Transmitter	6.95
Z80B-PIO	40	Parallel I/O Interface Controller (MK3881-6)	4.29
Z80B-SIO/0	40	Serial I/O (TxCB & RxCB Bonded) (MK3884-6)	9.95
Z80B-SIO/1	40	Serial I/O (Lacks DTRB) (MK3885-6)	12.95
Z80B-SIO/2	40	Serial I/O (Lacks SYNCB) (MK3887-6)	9.95

Z8000

Z8530	40	Serial Communications Controller	$6.95
Z8671	40	Z8 Family MCU with BASIC/Debug Interpreter	9.95

30013 1985 Zilog Data Book (1056 pages). $14.95

MICROPROCESSOR COMPONENTS

6400, 6500 SERIES

Part No.	Pins	Function	Price
6402	40	CMOS/LSI UART	$3.95
6502	40	MPU with Internal Clock (1MHz)	2.25
6502A	40	MPU with Internal Clock (2MHz)	2.75
6502B	40	MPU with Internal Clock (3MHz)	3.95
65C02	40	MPU with Internal Clock (CMOS)	8.95
6504A	28	CPU with Internal Clock	1.95
6507	28	CPU with Internal Clock	4.95
6508	28	MPU with RAM and I/O	8.95
6510	40	MPU with 8-Bit Bi-Directional I/O Port	9.95
6512	40	CPU with External Clock	.99
65SC12	40	CPU with External Clock (CMOS)	2.95
6520	40	Peripheral Inter. Adapter (MC6820)	1.75
6522	40	Versatile Inter. Adapter	2.95
6525	40	Tri-Port Interface	7.95
6526	40	Complex Interface Adapter	14.95
6529	20	Single Port Interface	4.95
6532	40	128x8 RAM, I/O and Timer Array	6.49
6545-1	40	CRT Controller (CRTC)	2.49
6545A-1	40	CRT Controller (CRTC) (2MHz)	2.95
6551	28	Asynchronous Comm. Interface Adapter	3.29
6551A	28	Asynchronous Comm. Interface Adapter (2MHz)	3.95
6560	40	Video Interface Chip — I (NTSC)	10.95
6567	40	Video Interface Chip — II (NTSC)	14.95
6569	40	Video Interface Chip — II PAL	14.95
6572	40	Video Interface Chip — II PAL-N	14.95
6581	28	Sound Interface Device	14.95

6800, 68B00, 68000 SERIES

6800-1MHz

6800	40	MPU–8-Bit	$1.75
6802	40	MPU–8-Bit with Clock and RAM	3.49
6803	40	8-Bit MCU	4.95
6808	40	8-Bit MPU with Clock	2.49
6809	40	CPU–8-Bit (On-Chip Oscillator)	3.49
6809E	40	CPU–8-Bit (External Clocking)	3.95
6810	24	128x8 Static RAM	1.25
6821	40	Peripheral Inter. Adapt	1.29
6840	28	Programmable Timer	3.95
6843	40	Programmable Floppy Disk Controller	2.95
6844	40	Direct Memory Access Controller	4.95
6845	40	CRT Controller (CRTC)	2.95
6847	40	Video Display Generator	4.95
6850	24	Asynchronous Comm. Int. Adapter (ACIA)	1.49
6852	24	Synchronous Serial Data Adapter	3.95
6854	28	Advanced Data-Link Controller	2.95
6860	24	0-600 bps Digital MODEM	4.95
6875	16	Two-Phase Clock Generator/Driver	8.95
6880A	16	Quad 3-State Bus Trans. (N8T26)	1.29

68B00-2MHz

68B00	40	MPU–8-Bit	$2.95
68B02	40	MPU–8-Bit with Clock and RAM	3.95
68B09	40	CPU–8-Bit (On-Chip Oscillator)	6.95
68B09E	40	CPU–8-Bit (External Clocking)	5.95
68B10	24	128x8 Static RAM	3.49
68B21	40	Peripheral Interface Adapter	1.95
68B45	40	CRT Controller (CRTC)	4.95
68B50	24	Asynchronous Comm. Int. Adapter (ACIA)	1.95

68000 SERIES

MC68000L8	64	MPU 16-Bit (8MHz)	$11.95
MC68661PB	28	Enhanced Prog. Comm. Interface (2661-2)	5.95
MC68701	40	8-Bit Microcomputer with EPROM	9.95

8000, 80000 SERIES

Part No.	Pins	Function	Price
		8000	
8031	40	CPU with RAM and I/O	$2.95
80C31BH	40	CPU with RAM and I/O (CMOS)	14.95
8035	40	MPU–8-Bit	1.49
80C35	40	MPU–8-Bit (CMOS)	4.49
8039	40	CPU–Single Chip 8-Bit (128 Bytes RAM)	1.49
80C39	40	CPU–Single Chip 8-Bit (128 Bytes RAM) (CMOS)	4.49
8040	40	CPU–8-Bit (256 Bytes RAM)	3.49
8048*	40	MPU–8-Bit (Can use for 8035)	1.29
8049*	40	CPU–Single 8-Bit (Can use for 8039)	1.29
8051AP	40	MCU (Tie Pin 31 Low to by-pass Internal ROM)	9.95
8060	40	CPU–8-Bit NMOS	8.95
8073	40	CPU–with Basic Micro Interpreter	29.95
8080A	40	CPU	2.49
8085A	40	CPU–8-Bit N-Channel	2.29
8085A-2	40	CPU–8-Bit N-Channel (5MHz)	3.95
80C85	40	CPU–8-Bit N-Channel (CMOS)	4.49
8086	40	CPU–16-Bit (5MHz)	6.95
8086-2	40	CPU–16-Bit (8MHz)	8.95

***8048 MPU AND 8049 CPU**
To convert an 8048 to an 8035, or an 8049 to an 8039, just tie Pin 7 high to by-pass the Internal ROM.

8000, 80000 SERIES (Continued)

Part No.	Pins	Function	Price
8087	40	Arithmetic Processor (5MHz)	$125.00
8087-2	40	Arithmetic Processor (8MHz)	159.95
8088	40	CPU–16-Bit (8-Bit Data Bus) (5MHz)	6.49
8088-2	40	CPU–16-Bit (8-Bit Data Bus) (8MHz)	8.95
8089-3	40	8 and 16-Bit HMOS I/O Processor	19.95
		8100	
8116	18	Dual Baud Rate Clock Generator (with Prog. Divider)	$4.95
8154	40	1K (128x8) RAM 16-Bit I/O	9.95
8155	40	HMOS RAM I/O Port and Timer	1.95
8155-2	40	HMOS RAM I/O Port and Timer	2.49
81C55	40	256x8 RAM I/O Timer (CMOS)	2.95
8156	40	RAM with I/O Port and Timer	2.49
8185-2	18	1024x8-Bit Static RAM for MCS-85	3.95
		8200	
8202	40	Dynamic RAM Controller	$9.95
8203	40	64K Dynamic RAM Controller	14.95
8205	16	High Speed 1 out of 8 Binary Decoder (3205)	3.29
8212	24	8-Bit Input/Output (74S412)	1.49
8214	24	Priority Interrupt Control	5.95
8216	16	Bi-Directional Bus Driver	1.49
8224	16	Clock Generator/Driver	2.25
8226	16	Bus Driver	1.65
8228	28	System Controller/Bus Driver (74S428)	2.49
8237	40	Programmable DMA Controller (3MHz)	4.49
8237-5	40	Programmable DMA Controller (5MHz)	4.95
8243	24	I/O Expander for 48 Series	2.25
82C43	24	I/O Expander for 48 Series (CMOS)	4.49
8250	40	ACE (IBM PC or XT Software Compatible)	6.95
8250A	40	Asynchronous Comm. Element	5.49
8250B	40	ACE (IBM PC or XT Software Compatible)	6.95
8251	28	Prog. Comm. I/O (USART)	1.29
8251A	28	Prog. Comm. Interface (USART)	1.75
82C51A	28	Prog. Comm. Interface (USART) (CMOS)	4.49
8253	24	Prog. Interval Timer	1.69
8253-5	24	Prog. Interval Timer	1.95
82C53-5	24	Prog. Interval Timer (CMOS)	4.49
8254	24	Prog. Interval Timer	2.95
8254-2	24	Prog. Interval Timer	4.95
8255	40	Prog. Peripheral I/O (PPI)	1.39
8255A-5	40	Prog. Peripheral I/O (PPI)	1.69
82C55A-5	40	Prog. Peripheral I/O (PPI) (CMOS)	4.49
8257	40	Prog. DMA Controller	2.25
8257-5	40	Prog. DMA Controller	2.49
8259	28	Prog. Interrupt Controller	1.69
8259-5	28	Prog. Interrupt Controller	1.95
8272	40	Single/Double Density Floppy Disk Cont. (D765A)	4.49
8274	40	Multi-Protocol Serial Controller (7201)	7.95
8275	40	Prog. CRT Controller	16.95
8279	40	Prog. Keyboard/Display Interface	2.49
8279-5	40	Prog. Keyboard/Display Interface	2.95
8282	20	Octal Latch	3.49
8283	20	Octal Latch (Inverts Input Data at Outputs)	3.95
8284	18	Clock Generator and Driver	2.49
8286	20	Octal Bus Transceiver	3.95
8287	20	Octal Bus Transceiver (Inverted)	3.95
8288	20	Bus Controller	4.49
8289	20	Bus Arbiter	9.95
		8300	
8303	20	8-Bit Tri-State Bi-Directional Transceiver	$2.29
8304	20	8-Bit Bi-Directional Receiver	2.29
8307	20	8-Bit Bi-Directional Receiver	2.29
8308	20	8-Bit Bi-Directional Receiver	2.29
8311	20	Octal Latched Peripheral Driver	2.49
8340	24	Serial Bi-Phase Transmitter/Encoder	29.95
8341	24	Serial Bi-Phase Receiver/Decoder	29.95
8360	48	Text Editing	10.95
		8500	
8501	40	MPU	$10.95
8502	40	MPU	7.95
8563	48	CRT Controller	15.95
8564	48	Video Interface Chip	15.95
		8700	
8701	16	Clock Chip	$9.95
8721	48	PLA	14.95
8722	48	MMU	9.95
8741	40	8-Bit Universal Peripheral Interface	10.95
8748	40	MPU–HMOS EPROM	7.95
8749	40	MPU–8-Bit (EPROM Version of 8049)	9.95
8751	40	CPU w/4Kx8 EPROM and 128x8 RAM	39.95
8755	40	16K EPROM with I/O	14.95
		80000	
80186	68	High Integration 16-Bit MPU	$19.95
80188	68	High Integration 16-Bit MPU (8-Bit Data Bus)	19.95
80287	40	Numeric Processor Ext. (5MHz)	199.95
80287-8	40	Numeric Processor Ext. (8MHz)	325.00

7400-7455

• 74C • 74F • 74H • 74L • 74S • 74AS • 74HC • 74LS • 74SC • 74ALS • 74HCT

PINS ⇨	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
7400 C F H L S AS HC LS ALS HCT	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
7401 L LS ALS	1Y	1A	1B	2Y	2A	2B	GND	3A	3B	3Y	4A	4B	4Y	VCC						
7401 H	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
7402 C F H L S AS HC LS ALS	1Y	1A	1B	2Y	2A	2B	GND	3A	3B	3Y	4A	4B	4Y	VCC						
7403 L S HC LS ALS	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
7404 C F H L S AS HC LS ALS HCT	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						
7405 H L S LS ALS HCT	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						
7406	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						
7407	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						
7408 C F H L S AS HC LS ALS HCT	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
7409 S LS ALS	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
7410 C F H L S AS HC LS ALS	1A	1B	2A	2B	2C	2Y	GND	3Y	3A	3B	3C	1Y	1C	VCC						
7411 F H L S AS HC LS ALS	1A	1B	2A	2B	2C	2Y	GND	3Y	3A	3B	3C	1Y	1C	VCC						
7412 LS ALS	1A	1B	2A	2B	2C	2Y	GND	3Y	3A	3B	3C	1Y	1C	VCC						
7413 LS ALS	1A	1B	NC	1C	1D	1Y	GND	2Y	2A	2B	NC	2C	2D	VCC						
7414 C HC LS ALS	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						
7415 H S LS ALS	1A	1B	2A	2B	2C	2Y	GND	3Y	3A	3B	3C	1Y	1C	VCC						
7416	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						
7417	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						
7418 LS	1A	1B	NC	1C	1D	1Y	GND	2Y	2A	2B	NC	2C	2D	VCC						
7419 LS	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						
7420 C F H L S AS HC LS ALS	1A	1B	NC	1C	1D	1Y	GND	2Y	2A	2B	NC	2C	2D	VCC						
7421 H AS LS ALS	1A	1B	NC	1C	1D	1Y	GND	2Y	2A	2B	NC	2C	2D	VCC						
7422 H S LS ALS	1A	1B	NC	1C	1D	1Y	GND	2Y	2A	2B	NC	2C	2D	VCC						
7423	1X	1A	1B	S1G	1C	1D	1Y	GND	2Y	2A	2B	S2G	2C	2D	1$\overline{X}$	VCC				
7424 LS	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
7425	1A	1B	S1G	1C	1D	1Y	GND	2Y	2A	2B	S2G	2C	2D	VCC						
7426 L LS	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
7427 AS HC LS ALS	1A	1B	2A	2B	2C	2Y	GND	3Y	3A	3B	3C	1Y	1C	VCC						
7428 LS ALS	1Y	1A	1B	2Y	2A	2B	GND	3A	3B	3Y	4A	4B	4Y	VCC						
7430 C L H L S AS HC LS ALS	A	B	C	D	E	F	GND	Y	NC	NC	G	H	NC	VCC						
7431 LS	1A	1Y	2A	2Y	3A	3B	3Y	GND	4Y	4A	4B	5Y	5A	6Y	6A	VCC				
7432 C F S AS HC LS ALS	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
7433 LS ALS	1Y	1A	1B	2Y	2A	2B	GND	3A	3B	3Y	4A	4B	4Y	VCC						
7434 AS ALS HCT	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						
7435 ALS	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						
7437 S LS ALS	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
7438 S LS ALS	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
7439	1Y	1A	1B	2Y	2A	2B	GND	3A	3B	3Y	4A	4B	4Y	VCC						
7440 H S LS ALS	1A	1B	NC	1C	1D	1Y	GND	2Y	2A	2B	NC	2C	2D	VCC						
7441	Q8	Q9	A	D	VCC	B	C	Q2	Q3	Q7	Q6	GND	Q4	Q5	Q1	Q0				
7442 C L HC LS	Q0	Q1	Q2	Q3	Q4	Q5	Q6	GND	Q7	Q8	Q9	ID	IC	IB	IA	VCC				
7443 L	Q0	Q1	Q2	Q3	Q4	Q5	Q6	GND	Q7	Q8	Q9	ID	IC	IB	IA	VCC				
7444 L	Q0	Q1	Q2	Q3	Q4	Q5	Q6	GND	Q7	Q8	Q9	ID	IC	IB	IA	VCC				
7445	Q0	Q1	Q2	Q3	Q4	Q5	Q6	GND	Q7	Q8	Q9	ID	IC	IB	IA	VCC				
7446 L	IB	IC	$\overline{LT}$	$\overline{RBO}$	$\overline{RBI}$	ID	IA	GND	Qe	Qd	Qc	Qb	Qa	Qg	Qf	VCC				
7447 L LS	IB	IC	$\overline{LT}$	$\overline{RBO}$	$\overline{RBI}$	ID	IA	GND	Qe	Qd	Qc	Qb	Qa	Qg	Qf	VCC				
7448 C LS	IB	IC	$\overline{LT}$	$\overline{RBO}$	$\overline{RBI}$	ID	IA	GND	Qe	Qd	Qc	Qb	Qa	Qg	Qf	VCC				
7449 LS	IB	IC	$\overline{IBLK}$	ID	IA	Qe	GND	Qd	Qc	Qb	Qa	Qg	Qf	VCC						
7450 H	1A	2A	2B	2C	2D	2Y	GND	1Y	1C	1D	X	$\overline{X}$	1B	VCC						
7451 H S HC	1A	2A	2B	2C	2D	2Y	GND	1Y	1C	1D	NC	NC	1B	VCC						
7451 L LS	1A	2A	2B	2C	2D	2Y	GND	1Y	1D	1E	1F	1B	1C	VCC						
7452 H	A	B	C	D	E	NC	GND	Y	X	F	G	H	I	VCC						
7453	A	C	D	E	F	NC	GND	Y	G	H	X	$\overline{X}$	B	VCC						
7453 H	A	C	D	E	F	G	GND	Y	H	I	X	$\overline{X}$	B	VCC						
7454	A	C	D	E	F	NC	GND	Y	G	H	NC	NC	B	VCC						
7454 H	A	C	D	E	F	G	GND	Y	H	I	NC	NC	B	VCC						
7454 L LS	A	B	C	D	E	Y	GND	NC	F	G	H	I	J	VCC						
7455 H	A	B	C	D	X	NC	GND	Y	$\overline{X}$	E	F	G	H	VCC						

7455-74110

• 74C • 74F • 74H • 74L • 74S • 74AS • 74HC • 74LS • 74SC • 74ALS • 74HCT

PINS ⇨	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
7455 L LS	A	B	C	D	NC	NC	GND	Y	NC	E	F	G	H	VCC						
7456 LS	CLKB	VCC	QA	GND	CLKA	CLR	QB	QC												
7457 LS	CLKB	VCC	QA	GND	CLKA	CLR	QB	QC												
7458 HC	1A	2A	2B	2C	2D	2Y	GND	1Y	1D	1E	1F	1B	1C	VCC						
7460 H	1A	1B	1C	2A	2B	2C	GND	2D	2$\overline{X}$	2X	1X	1$\overline{X}$	1D	VCC						
7461 H	1A	1B	1C	2A	2B	2C	GND	2X	1X	3X	3A	3B	3C	VCC						
7462 H	A	B	C	D	E	$\overline{X}$	GND	X	F	G	H	I	J	VCC						
7463 LS	1A	1Y	2Y	2A	3A	3Y	GND	4Y	4A	5A	5Y	6Y	6A	VCC						
7464 F S	A	E	F	G	H	I	GND	Y	J	K	B	C	D	VCC						
7465 S	A	E	F	G	H	I	GND	Y	J	K	B	C	D	VCC						
7468 LS	1CLKA	1QB	1QD	1$\overline{CLR}$	2QC	NC	2QA	GND	2CLK	2QB	2$\overline{CLR}$	2QD	1QC	1QA	1CLKB	VCC				
7469 LS	1CLKA	1QB	1QD	1$\overline{CLR}$	2QC	NC	2QA	GND	2CLK	2QB	2$\overline{CLR}$	2QD	1QC	1QA	1CLKB	VCC				
7470	NC	$\overline{CR}$	J1	J2	J	$\overline{Q}$	GND	Q	$\overline{K}$	K1	K2	CK	$\overline{PR}$	VCC						
7471 H	J1A	J1B	J2A	J2B	$\overline{PR}$	Q	GND	$\overline{Q}$	K1A	K1B	K2A	K2B	CK	VCC						
7471 L	NC	$\overline{CR}$	S1	S2	S3	$\overline{Q}$	GND	Q	R1	R2	R3	CK	$\overline{PR}$	VCC						
7472 H L	NC	$\overline{CR}$	J1	J2	J3	$\overline{Q}$	GND	Q	K1	K2	K3	CK	$\overline{PR}$	VCC						
7473 C F H L HC LS	1CK	1$\overline{CR}$	1K	VCC	2CK	2$\overline{CR}$	2J	2$\overline{Q}$	2Q	2K	GND	1Q	1$\overline{Q}$	1J						
7474 C F H L S AS HC LS ALS HCT	1$\overline{CR}$	1D	1CK	1$\overline{PR}$	1Q	1$\overline{Q}$	GND	2$\overline{Q}$	2Q	2$\overline{PR}$	2CK	2D	2$\overline{CR}$	VCC						
7475 L HC LS	1$\overline{Q}$	1D	2D	E3-4	VCC	3D	4D	4$\overline{Q}$	4Q	3Q	3$\overline{Q}$	GND	E1-2	2$\overline{Q}$	2Q	1Q				
7476 C H HC LS HCT	1CK	1$\overline{PR}$	1$\overline{CR}$	1J	VCC	2CK	2$\overline{PR}$	2$\overline{CR}$	2J	2$\overline{Q}$	2Q	2K	GND	1$\overline{Q}$	1Q	1K				
7477 L LS	1D	2D	E3-4	VCC	3D	4D	NC	4Q	3Q	NC	GND	E1-2	2Q	1Q						
7478 H	1K	1Q	1$\overline{Q}$	1J	2$\overline{Q}$	2Q	GND	2K	CK	2$\overline{PR}$	2J	$\overline{CR}$	1$\overline{PR}$	VCC						
7478 L LS	CK	1$\overline{PR}$	1J	VCC	$\overline{CR}$	2$\overline{PR}$	2K	2Q	2$\overline{Q}$	2J	GND	1$\overline{Q}$	1Q	1K						
7480	B	BC	Cn	Cn+1	SM	$\overline{SM}$	GND	A1	A2	A	AC	B1	B2	VCC						
7481	AX3	AX2	AX1	VCC	AY1	AY2	AY3	AY4	WR0	GND	S0	S1	WR1	AX4						
7482	SM1	A1	B1	VCC	C0	NC	NC	NC	NC	C2	GND	SM2	B2	A2						
7483 C LS	A4	SM3	A3	B3	VCC	SM2	B2	A2	SM1	A1	B1	GND	C0	C4	SM4	B4				
7484	AX4	AX3	AX2	AX1	VCC	Y1	AY2	AY3	AY4	WR0B	WR0A	GND	S0	S1	WR1B	WR1A				
7485 C S HC LS	IB3	IA<B	IA=B	IA>B	QA>B	QA=B	QA<B	GND	IB0	IA0	IB1	IA1	IA2	IB2	IA3	VCC				
7485 L	IB2	IA2	QA=B	IA>B	IA<B	IA=B	IA1	GND	IB1	IA0	IB0	QA<B	QA>B	IB3	IA3	VCC				
7486 F S AS HC LS ALS	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
7486 L	1A	1B	1Y	2Y	2A	2B	GND	3A	3B	3Y	4Y	4A	4B	VCC						
7487 H	C	A1	Y1	NC	A2	Y2	GND	B	Y3	A3	NC	Y4	A4	VCC						
7488	DO1	DO2	DO3	DO4	DO5	DO6	DO7	GND	DO8	ADA	ADB	ADC	ADD	ADE	$\overline{CS}$	VCC				
7489 C LS	ADA	$\overline{ME}$	$\overline{WE}$	DI1	$\overline{DO1}$	DI2	$\overline{DO2}$	GND	$\overline{DO3}$	DI3	$\overline{DO4}$	DI4	ADD	ADC	ADB	VCC				
7490 C L LS	IBD	R0(1)	R0(2)	NC	VCC	R9(1)	R9(2)	QC	QB	GND	QD	QA	NC	IA						
7491 L LS	NC	NC	NC	NC	VCC	NC	NC	NC	CK	GND	IB	IA	QH	$\overline{QH}$						
7492 LS	IB	NC	NC	NC	VCC	R0(1)	R0(2)	QD	QC	GND	QB	QA	NC	IA						
7493 C LS	IB	R0(1)	R0(2)	NC	VCC	NC	NC	QC	QB	GND	QD	QA	NC	IA						
7493 L	R0(1)	R0(2)	NC	VCC	NC	NC	IB	QB	QC	GND	QD	QA	IA							
7494	P1A	P1B	P1C	P1D	VCC	PE1	SI	CK	Q	CR	P2D	GND	P2C	P2B	PE2	P2A				
7495 C AS LS	SI	IA	IB	IC	ID	MC	GND	CK2L	CK1R	QD	QC	QB	QA	VCC						
7495 L	SI	IB	IC	VCC	ID	MC	CK1R	CK2L	QD	QC	GND	QB	QA	IA						
7496 L LS	CK	PR-A	PR-B	PR-C	VCC	PR-D	PR-E	PR-EN	SI	QE	QD	GND	QC	QB	QA	$\overline{CR}$				
7497	IB	IE	IF	IA	QZ	QY	ENQ	GND	CK	S	ENI	UC	CR	IC	ID	VCC				
7498 L	IA2	IA1	IB1	IB2	IC1	IC2	ID2	GND	WS	CK	QD	ID1	QC	QB	QA	VCC				
7499 L	A	J	B	C	VCC	D	M	CK1	CK2	QD	$\overline{QD}$	QC	GND	QB	QA	$\overline{K}$				
74100	NC	1D1	1D2	1Q2	1Q1	NC	GND	2Q1	2Q2	2D2	2D1	E-2G	NC	NC	2D3	2D4	2Q4	2Q3	1Q3	1Q4
	1D4	1D3	E-1G	VCC																
74101 H	J1A	J1B	J2A	J2B	$\overline{PR}$	Q	GND	$\overline{Q}$	K1A	K1B	K2A	K2B	CK	VCC						
74102 H	NC	$\overline{CR}$	J1	J2	J3	$\overline{Q}$	GND	Q	K1	K2	K3	CK	$\overline{PR}$	VCC						
74103 H	1CK	1$\overline{CR}$	1K	VCC	2CK	2$\overline{CR}$	2J	2$\overline{Q}$	2Q	2K	GND	1Q	1$\overline{Q}$	1J						
74104	JK	$\overline{PRE}$	K1	J1	J2	Q	GND	$\overline{Q}$	CLK	K2	K3	J3	$\overline{CLR}$	VCC						
74105	JK	$\overline{PRE}$	K1	J1	J2	Q	GND	$\overline{Q}$	CLK	$\overline{K2}$	K3	J3	$\overline{CLR}$	VCC						
74106 H	1CK	1$\overline{PR}$	1$\overline{CR}$	1J	VCC	2CK	2$\overline{PR}$	2$\overline{CR}$	2J	2$\overline{Q}$	2Q	2K	GND	1$\overline{Q}$	1Q	1K				
74107 C HC LS	1J	1$\overline{Q}$	1Q	1K	2Q	2$\overline{Q}$	GND	2J	2CK	2$\overline{CR}$	2K	1CK	1$\overline{CR}$	VCC						
74108 H	1K	1Q	1$\overline{Q}$	1J	2$\overline{Q}$	2Q	GND	2K	CK	2$\overline{PR}$	2J	CR	1$\overline{PR}$	VCC						
74109 F S AS HC LS ALS HCT	1$\overline{CR}$	1J	1$\overline{K}$	1CK	1$\overline{PR}$	1Q	1$\overline{Q}$	GND	2$\overline{Q}$	2Q	2$\overline{PR}$	2CK	2$\overline{K}$	2J	2$\overline{CR}$	VCC				
74110	NC	$\overline{CR}$	J1	J2	J3	$\overline{Q}$	GND	Q	K1	K2	K3	CK	$\overline{PR}$	VCC						

ABBREVIATIONS

CD = Count Down
CK = Clock (CLK)
CR = Clear (CLR)
CU = Count Up
CV = Control Voltage
CY = Carry
CAP = Capacitor External
EN = Enable
EQ = Equal
D = Down
GT = Greater Than
GND = Ground
I = Input
LC = Load Count
LD = Load
LS = Load Shift
LT = Lamp Test
MC = Mode Control
MN = Max - Min
PI = Parallel Input
PR = Preset
Q = Output
RC = Ripple Clock
RE = Reset
RCO = Ripple Carry Output
REX = Resistor External/ Capacitor External
RIN = Resistor Internal
S = Strobe
SI = Serial Input
SM = Sum
ST = Set
SEL = Select
SHF = Shift
TR = Trigger
THR = Threshold
U = Up
WS = Word Select

PART NUMBER

INTEGRATED CIRCUIT PIN-OUTS

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• 74C • 74F • 74H • 74L • 74S • 74AS **74111-74173** • 74HC • 74LS • 74SC • 74ALS • 74HCT

PINS ⇨	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
74111	1K	1PR	1$\overline{CR}$	1J	1CK	1$\overline{Q}$	1Q	GND	2Q	2$\overline{Q}$	2CK	2J	2$\overline{CR}$	2$\overline{PR}$	2K	VCC				
74112 LS AS HC HCT	1CK	1K	1J	1$\overline{PR}$	1Q	1$\overline{Q}$	GND	2$\overline{Q}$	2Q	2$\overline{PR}$	2J	2K	2CK	2$\overline{CR}$	1$\overline{CR}$	VCC				
74113 LS AS HC LS ALS	1CK	1K	1J	1$\overline{PR}$	1Q	1$\overline{Q}$	GND	2$\overline{Q}$	2Q	2$\overline{PR}$	2J	2K	2CK	VCC						
74114 F S AS LS ALS	$\overline{CR}$	1K	1J	1$\overline{PR}$	1Q	1$\overline{Q}$	GND	2$\overline{Q}$	2Q	2$\overline{PR}$	2J	2K	CK	VCC						
74116	1$\overline{CR}$	E1$\overline{G1}$	E2$\overline{G2}$	1D1	1Q1	1D2	1Q2	1D3	1Q3	1D4	1Q4	GND	2$\overline{CR}$	E2$\overline{G1}$	E2$\overline{G2}$	2D1	2Q1	2D2	2Q2	2D3
	2Q3	2D4	2Q4	VCC																
74120	I1M	I1$\overline{S1}$	I1$\overline{S2}$	I1R	I1C	Q1Y	Q1$\overline{Y}$	GND	Q2$\overline{Y}$	Q2Y	I2C	I2$\overline{R}$	I2$\overline{S1}$	I2$\overline{S2}$	I2M	VCC				
74121 L	$\overline{Q}$	NC	A1	A2	B	Q	GND	NC	RIN	CAP	REX	NC	NC	VCC						
74122 L LS	A1	A2	B1	B2	$\overline{CR}$	$\overline{Q}$	GND	Q	RIN	NC	CAP	NC	REX	VCC						
74123 L HC LS	1A	1B	1$\overline{CR}$	1$\overline{Q}$	2Q	2CAP	2REX	GND	2A	2B	2$\overline{CR}$	2$\overline{Q}$	1Q	1CAP	1REX	VCC				
74124 S	FC2	FC1	1RAN	1CAP	1CAP	EN1G	Q1Y	OGND	GND	Q2Y	EN2G	2CAP	2CAP	2RAN	OVCC	VCC				
74125 HC LS	1C	1A	1Y	2C	2A	2Y	GND	3Y	3A	3C	4Y	4A	4C	VCC						
74126 HC LS	1C	1A	1Y	2C	2A	2Y	GND	3Y	3A	3C	4Y	4A	4C	VCC						
74128	1Y	1A	1B	2Y	2A	2B	GND	3A	3B	3Y	4A	4B	4Y	VCC						
74131 AS ALS	A	B	C	CLK	$\overline{G2}$	G1	Y7	GND	Y6	Y5	Y4	Y3	Y2	Y1	Y0	VCC				
74132 S HC LS ALS	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
74133 S HC LS ALS	A	B	C	D	E	F	G	GND	Y	H	I	J	K	L	M	VCC				
74134 S	A	B	C	D	E	F	G	GND	Y	H	I	J	K	L	$\overline{OC}$	VCC				
74135 S	1A	1B	1Y	1C,2C	2A	2B	2Y	GND	3Y	3A	3B	3C,4C	4Y	4A	4B	VCC				
74136 AS LS ALS	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
74137 S AS HC LS SC ALS HCT	A	B	C	$\overline{GL}$	$\overline{G2}$	G1	Y7	GND	Y6	Y5	Y4	Y3	Y2	Y1	Y0	VCC				
74138 F S AS HC LS SC ALS HCT	SELA	SELB	SELC	E-G2A	E-G2B	EG1	QY7	GND	QY6	QY5	QY4	QY3	QY2	QY1	QY0	VCC				
74139 F S AS HC LS SC ALS HCT	E1$\overline{G}$	SEL1A	SEL1B	Q1Y0	Q1Y1	Q1Y2	Q1Y3	GND	Q2Y3	Q2Y2	Q2Y1	Q2Y0	SEL2B	SEL2A	E2$\overline{G}$	VCC				
74140 S	1A	1B	NC	1C	1D	1Y	GND	2Y	2A	2B	NC	2C	2D	VCC						
74141	Q8	Q9	IA	ID	VCC	IB	IC	Q2	Q3	Q7	Q6	GND	Q4	Q5	Q1	Q0				
74142	$\overline{CR}$	DQ7	DQ6	DQ4	DQ5	DQ3	DQ2	GND	DQ1	DQ0	DQ8	DQ9	L$\overline{S}$I	Q$\overline{D}$I	ICK	VCC				
74143	S$\overline{CE}$I	CK	$\overline{CR}$	$\overline{RB}$I	BI	$\overline{RBO}$	DP	Qdp	Qd	Qf	Qe	GND	Qg	Qc	Qa	Qb	QA	QB	QC	QD
	L$\overline{S}$I	MAXC	P$\overline{CE}$I	VCC																
74144	S$\overline{CE}$I	CK	$\overline{CR}$	$\overline{RB}$I	BI	$\overline{RBO}$	DP	Qdp	Qd	Qf	Qe	GND	Qg	Qc	Qa	Qb	QA	QB	QC	QD
	L$\overline{S}$I	MAXC	P$\overline{CE}$I	VCC																
74145 LS	Q0	Q1	Q2	Q3	Q4	Q5	Q6	GND	Q7	Q8	Q9	ID	IC	IB	IA	VCC				
74147 HC LS	I4	I5	I6	I7	I8	QC	QB	GND	QA	I9	I1	I2	I3	QD	NC	VCC				
74148 F S LS	I4	I5	I6	I7	IE1	QA2	QA1	GND	QA0	I0	I1	I2	I3	QGS	QE0	VCC				
74149 HC HCT	$\overline{RI0}$	$\overline{RI1}$	$\overline{RI2}$	$\overline{RI3}$	$\overline{RI4}$	$\overline{RI5}$	$\overline{RI6}$	$\overline{RI7}$	$\overline{ROE}$	GND	$\overline{ROP}$	$\overline{RO7}$	$\overline{RO6}$	$\overline{RO5}$	$\overline{RO4}$	$\overline{RO3}$	$\overline{RO2}$	$\overline{RO1}$	$\overline{RO0}$	VCC
74150 C	IE7	IE6	IE5	IE4	IE3	IE2	IE1	IE0	$\overline{G}$	WQ	DSEL	GND	CSEL	BSEL	ASEL	IE15	IE14	IE13	IE12	IE11
	IE10	IE9	IE8	VCC																
74151 C F S AS HC LS ALS	I3	I2	I1	I0	QY	QW	$\overline{G}$	GND	CSEL	BSEL	ASEL	I7	I6	I5	I4	VCC				
74152 LS	I4	I3	I2	I1	I0	QW	GND	SELC	SELB	SELA	I7	I6	I5	VCC						
74153 F L S AS HC LS ALS	S1$\overline{G}$	BSEL	I1C3	I1C2	I1C1	I1C0	Q1Y	GND	Q2Y	I2C0	I2C1	I2C2	I2C3	ASEL	S2$\overline{G}$	VCC				
74154 C L HC LS	Q0	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	GND	Q11	Q12	Q13	Q14	Q15	I$\overline{G}$1	I$\overline{G}$2	ID
	IC	IB	IA	VCC																
74155 HC LS HCT	D1C	S1$\overline{G}$	IB	Q1Y3	Q1Y2	Q1Y1	Q1Y0	GND	Q2Y0	Q2Y1	Q2Y2	Q2Y3	IA	S2$\overline{G}$	D2C	VCC				
74156 LS HCT	D1C	S1$\overline{G}$	IB	Q1Y3	Q1Y2	Q1Y1	Q1Y0	GND	Q2Y0	Q2Y1	Q2Y2	Q2Y3	IA	S2$\overline{G}$	D2C	VCC				
74157 C F L S AS HC LS ALS	SEL	I1A	I1B	Q1Y	I2A	I2B	Q2Y	GND	Q3Y	I3B	I3A	Q4Y	I4B	I4A	$\overline{G}$	VCC				
74158 ALS HCT HC LS	SEL	I1A	I1B	Q1Y	I2A	I2B	Q2Y	GND	Q3Y	I3B	I3A	Q4Y	I4B	I4A	$\overline{G}$	VCC				
74159	Q0	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	GND	Q11	Q12	Q13	Q14	Q15	I$\overline{G}$1	I$\overline{G}$2	ID
	IC	IB	IA	VCC																
74160 C F S AS HC LS ALS	$\overline{CR}$	CK	IA	IB	IC	ID	ENP	GND	L$\overline{D}$	ENT	QD	QC	QB	QA	RCO	VCC				
74161 C F S AS HC LS ALS	$\overline{CR}$	CK	IA	IB	IC	ID	ENP	GND	L$\overline{D}$	ENT	QD	QC	QB	QA	RCO	VCC				
74162 C F S AS HC LS ALS	$\overline{CR}$	CK	IA	IB	IC	ID	ENP	GND	L$\overline{D}$	ENT	QD	QC	QB	QA	RCO	VCC				
74163 C F S AS HC LS ALS	$\overline{CR}$	CK	IA	IB	IC	ID	ENP	GND	L$\overline{D}$	ENT	QD	QC	QB	QA	RCO	VCC				
74164 C F L HC LS ALS HCT	SIA	SIB	QA	QB	QC	QD	GND	CK	$\overline{CR}$	QE	QF	QG	QH	VCC						
74165 C L HC LS ALS	L$\overline{S}$	CK	PIE	PIF	PIG	PIH	Q$\overline{H}$	GND	QH	SI	PIA	PIB	PIC	PID	CKI	VCC				
74166 LS ALS	SI	PIA	PIB	PIC	PID	CKI	CK	GND	$\overline{CR}$	PIE	PIF	PIG	QH	PIH	L$\overline{S}$	VCC				
74167	NC	IC	ID	Sto9	QZ	QY	ENQ	GND	CK	S	ENI	UC	CR	IA	IB	VCC				
74168 F S AS LS ALS	U/$\overline{D}$	CK	IA	IB	IC	ID	E$\overline{NP}$	GND	L$\overline{D}$	E$\overline{NT}$	QD	QC	QB	QA	RCO	VCC				
74169 F S AS LS ALS	U/$\overline{D}$	CK	IA	IB	IC	ID	E$\overline{NP}$	GND	L$\overline{D}$	E$\overline{NT}$	QD	QC	QB	QA	RCO	VCC				
74170 LS	D2	D3	D4	RB	RA	Q4	Q3	GND	Q2	Q1	ENR	EN$\overline{W}$	WB	WA	D1	VCC				
74171 LS	1$\overline{Q}$	2$\overline{Q}$	2Q	2D	3D	3Q	3$\overline{Q}$	GND	4$\overline{Q}$	4Q	4D	CLK	$\overline{CLR}$	1D	1Q	VCC				
74172 S	1W1	1W0	1G$\overline{W}$	I1DB	I2DB	CK	1R2	1R1	1R0	Q1QB	Q2QB	GND	Q2QA	Q1QA	1G$\overline{R}$	2G$\overline{R}$	2W/R0	2W/R1	2W/R2	2G$\overline{W}$
	I2DA	I1DA	1W2	VCC																
74173 C HC LS	QCM	QCN	1Q	2Q	3Q	4Q	CK	GND	ENI$\overline{G}$1	ENI$\overline{G}$2	I4D	I3D	I2D	I1D	CR	VCC				

• 74C • 74F • 74H • 74L • 74S • 74AS **74174-74250** • 74HC • 74LS • 74SC • 74ALS • 74HCT

PINS ⇨	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
74174 C F S AS HC LS ALS	$\overline{CR}$	1Q	1D	2D	2Q	3D	3Q	GND	CK	4Q	4D	5Q	5D	6D	6Q	VCC				
74175 C F S AS HC LS ALS	$\overline{CR}$	1Q	1$\overline{Q}$	1D	2D	2$\overline{Q}$	2Q	GND	CK	3Q	3$\overline{Q}$	3D	4D	4$\overline{Q}$	4Q	VCC				
74176	LC	QC	IC	IA	QA	CK2	GND	CK1	QB	IB	ID	QD	CR	VCC						
74177	LC	QC	IC	IA	QA	CK2	GND	CK1	QB	IB	ID	QD	CR	VCC						
74178	IB	IA	SI	QA	CK	QB	GND	QC	LD	QD	SFT	ID	IC	VCC						
74179	CR	IB	IA	SI	QA	CK	QB	GND	QC	LD	QD	$\overline{QD}$	SHF	ID	IC	VCC				
74180 S	IG	IH	EVI	ODDI	EVQ	ODDQ	GND	IA	IB	IC	ID	IE	IF	VCC						
74181 F S AS HC LS	I$\overline{B0}$	I$\overline{A0}$	I$\overline{S3}$	I$\overline{S2}$	IS1	IS0	ICN	IM	QF$\overline{0}$	QF$\overline{1}$	QF$\overline{2}$	GND	QF$\overline{3}$	QA=B	Q$\overline{P}$	QCN4	Q$\overline{G}$	I$\overline{B3}$	I$\overline{A3}$	I$\overline{B2}$
	I$\overline{A2}$	I$\overline{B1}$	I$\overline{A1}$	VCC																
74182 F S AS HC LS	I$\overline{G1}$	I$\overline{P1}$	I$\overline{G0}$	I$\overline{P0}$	I$\overline{G3}$	I$\overline{P3}$	Q$\overline{P}$	GND	QCnz	Q$\overline{G}$	QCn+Y	QCn+X	ICn	I$\overline{G2}$	I$\overline{P2}$	VCC				
74183 K LS	I1A	NC	I1B	I1Cn	Q1Cn	Q1SM	GND	Q2SM	NC	Q2Cn	I2Cn	I2B	I2A	VCC						
74184	QY1	QY2	QY3	QY4	QY5	QY6	QY7	GND	QY8	SELA	SELB	SELC	SELD	SELE	ENG	VCC				
74185	QY1	QY2	QY3	QY4	QY5	QY6	QY7	GND	QY8	SELA	SELB	SELC	SELD	SELE	ENG	VCC				
74186	NC	NC	ADA	ADB	ADC	CS1	CS2	ADD	ADE	ADF	GND1	NC	GND2	TO	DO8	DO7	DO6	DO5	DO4*	DO3
	DO2	DO1	GND2	VCC																
74187	ADG	ADF	ADE	ADD	ADA	ADB	ADC	GND	DO4	DO3	DO2	DO1	S1	S2	ADH	VCC				
74188 S	DO1	DO2	DO3	DO4	DO5	DO6	DO7	GND	DO8	ADA	ADB	ADC	ADD	ADE	S	VCC				
74189 F S LS	ADA	S	R/W	DI1	DO1	DI2	DO2	GND	DO3	DI3	DO4	DI4	ADD	ADC	ADB	VCC				
74190 F HC LS ALS	IDB	QB	QA	CTEN	ID/U	QC	QD	GND	IDD	IDC	LD	QMN	RCO	CLK	IA	VCC				
74191 F HC LS ALS HCT	IB	QB	QA	CTEN	ID/U	QC	QD	GND	ID	IC	LD	QMM	RCO	CLK	IA	VCC				
74192 C F L AS HC LS ALS	IB	QB	QA	ICD	ICU	QC	QD	GND	ID	IC	LD	QCY	QBW	ICR	IA	VCC				
74193 C F L AS HC LS ALS HCT	IB	QB	QA	ICD	ICU	QC	QD	GND	ID	IC	LD	QCY	QBW	ICR	IA	VCC				
74194 F S LS AS HC LS	$\overline{CR}$	SRSI	PIA	PIB	PIC	PID	SLSI	GND	S0	S1	CK	QD	QC	QB	QA	VCC				
74195 C S AS HC LS	$\overline{CR}$	SIJ	SI$\overline{K}$	PIA	PIB	PIC	PID	GND	SL$\overline{D}$	CK	$\overline{QD}$	QD	QC	QB	QA	VCC				
74196 S LS	L$\overline{C}$	QC	IC	IA	QA	CK2	GND	CK1	QB	IB	ID	QD	$\overline{CR}$	VCC						
74197 S LS	L$\overline{C}$	QC	IC	IA	QA	CK2	GND	CK1	QB	IB	ID	QD	$\overline{CR}$	VCC						
74198	SO	SRSI	IA	QA	IB	QB	IC	QC	ID	QD	CK	GND	$\overline{CR}$	QE	IE	QF	IF	QG	IG	QH
	IH	SLSI	SI	VCC																
74199	SI$\overline{K}$	SIJ	IA	QA	IB	QB	IC	QC	ID	QD	CKIN	GND	CK	$\overline{CR}$	QE	IE	QF	$\overline{IF}$	QG	IG
	QH	IH	SL$\overline{D}$	VCC																
74200 C	ADA	ADB	S1	S2	S3	Q	ADD	GND	ADE	ADF	ADG	WEN	DI	ADH	ADC	VCC				
74201 S	ADA	ADB	S1	S2	S3	Q	ADD	GND	ADE	ADF	ADG	WEN	DI	ADH	ADC	VCC				
74202	ADA	ADB	E1	E2	E3	Q	ADD	GND	ADE	ADF	ADG	WEN	DI	ADH	ADC	VCC				
74207	ADG	ADF	ADE	ADD	ADA	ADB	ADC	GND	IO4	IO3	IO2	IO1	DE	W	ADH	VCC				
74208	ADA	ADB	ADC	ADD	DI3	ADE	ADF	ADG	DI2	GND	DI1	DO1	DO2	DO3	DO4	OEN	W	ADH	DI4	VCC
74210 S LS	E1	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	E2	VCC
74214	SEN	ADA	ADB	ADC	ADD	ADE	D0	GND	ADF	ADG	ADH	ADI	ADJ	WEN	DI	VCC				
74215	SEN	ADA	ADB	ADC	ADD	ADE	D0	GND	ADF	ADG	ADH	ADI	ADJ	WEN	DI	VCC				
74219 F LS	A0	S	R/W	D1	Q1	D2	Q2	GND	Q3	D3	Q4	D4	A3	A2	A1	VCC				
74221 C HC LS	1A	1B	1$\overline{CR}$	1$\overline{Q}$	2Q	2CAP	2REX	GND	2A	2B	2$\overline{CR}$	2$\overline{Q}$	1Q	1CAP	1REX	VCC				
74222 LS	OE	IRE	IR	LDCK	D0	NC	D1	D2	D3	GND	$\overline{CLR}$	Q3	Q2	Q1	NC	Q0	OR	ORE	UNCK	VCC
74224 LS	OE	IR	LDCK	D0	D1	D2	D3	GND	$\overline{CLR}$	Q3	Q2	Q1	Q0	OR	UNCK	VCC				
74225 S	CKA	IR	CKQ	DI1	DI2	DI3	DI4	DI5	$\overline{OE}$	GND	DO5	DO4	DO3	DO2	DO1	UCKI	OR	$\overline{CR}$	CKB	VCC
74226 S	SGBA	S1	A1	A2	A3	A4	OCBA	GND	OCAB	B4	B3	B2	B1	SELS2	SGAB	VCC				
74227 LS	OE	IRE	IR	LDCK	D0	NC	D1	D2	D3	GND	$\overline{CLR}$	Q3	Q2	Q1	NC	Q0	OR	ORE	UNCK	VCC
74228 LS	OE	IR	LDCK	D0	D1	D2	D3	GND	$\overline{CLR}$	Q3	Q2	Q1	Q0	OR	UNCK	VCC				
74230 AS	1$\overline{G}$	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	2$\overline{G}$	VCC
74231 AS	1$\overline{G}$	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	2G	VCC
74237 HC SC HCT	SELA	SELB	SELC	$\overline{GL}$	$\overline{G2}$	G1	O7Y	GND	QY6	QY5	QY4	QY3	QY2	QY1	QY0	VCC				
74238 SC HCT	A0	A1	A2	E1	E2	E3	O7	VSS	O6	O5	O4	O3	O2	O1	O0	VCC				
74239 SC HCT	Ea	A0a	A1a	O0a	O1a	O2a	O3a	VSS	O3b	O2b	O1b	O0b	A1b	A0b	Eb	VCC				
74240 C F S AS HC LS ALS HCT	1$\overline{G}$	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	2$\overline{G}$	VCC
74241 F S AS HC LS ALS HCT	1$\overline{G}$	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	2G	VCC
74242 F AS HC LS SC ALS HCT	GAB	NC	1A	2A	3A	4A	GND	4B	3B	2B	1B	NC	GBA	VCC						
74243 F AS HC LS SC ALS HCT	GAB	NC	1A	2A	3A	4A	GND	4B	3B	2B	1B	NC	GBA	VCC						
74244 C F S AS HC LS SC ALS HCT	1$\overline{G}$	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	2$\overline{G}$	VCC
74245 F AS HC LS SC ALS HCT	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	E$\overline{G}$	VCC
74246 LS	IB	IC	L$\overline{T}$	RBO	RBI	ID	IA	GND	Qe	Qd	Qc	Qb	Qa	Qg	Qf	VCC				
74247 LS	IB	IC	L$\overline{T}$	RBO	RBI	ID	IA	GND	Qe	Qd	Qc	Qb	Qa	Qg	Qf	VCC				
74248 LS	IB	IC	LT	RBO	RBI	ID	IA	GND	Qe	Qd	Qc	Qb	Qa	Qg	Qf	VCC				
74249 LS	IB	IC	LT	RBO	RBI	ID	IA	GND	Qe	Qd	Qc	Qb	Qa	Qg	Qf	VCC				
74250 AS	E7	E6	E5	E4	E3	E2	E1	E0	G	W	D	GND	C	B	A	E15	E14	E13	E12	E11
	E10	E9	E8	VCC																

• 74C • 74F • 74H • 74L • 74S • 74AS **74251-74352** • 74HC • 74LS • 74SC • 74ALS • 74HCT

PINS ⇨	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
74251 F, S, AS, HC, LS, ALS	DI3	DI2	DI1	DI0	QY	QW	S	GND	DSEC	DSEB	DSEA	DI7	DI6	DI5	DI4	VCC				
74253 F, S, AS, HC, LS, ALS	QIG	BSEL	I1C3	I1C2	I1C1	I1C0	Q1Y	GND	Q2Y	I2C0	I2C1	I2C2	I2C3	ASEL	Q2G	VCC				
74256 LS	A0	A1	DA	Q0A	Q1A	Q2A	Q3A	GND	Q0B	Q1B	Q2B	Q3B	DB	EN	CREN	VCC				
74257 F, S, AS, HC, LS, ALS, HCT	SEL	I1A	I1B	Q1Y	I2A	I2B	Q2Y	GND	Q3Y	I3B	I3A	Q4Y	I4B	I4A	G	VCC				
74258 F, S, AS, LS, ALS	SEL	I1A	I1B	Q1Y	I2A	I2B	Q2Y	GND	Q3Y	I3B	I3A	Q4Y	I4B	I4A	G	VCC				
74259 HC, LS, ALS	SELA	SELB	SELC	Q0	Q1	Q2	Q3	GND	Q4	Q5	Q6	Q7	DI	G	CR	VCC				
74260 S, LS	1A	1B	1C	2A	1Y	2Y	GND	2B	2C	2D	2E	1D	1E	VCC						
74261 LS	B3	B4	LCG	M2	Q4	Q3	Q2	GND	Q1	Q0	M0	M1	B0	B1	B2	VCC				
74264 AS	A1	B1	A0	B0	A3	B3	RCOB	GND	C2	RCOA	C1	C0	CE	A2	B2	VCC				
74265	1A	1W	1Y	2A	2B	2W	2Y	GND	3Y	3W	3A	3B	4Y	4W	4A	VCC				
74266 HC, LS	1A	1B	1Y	2Y	2A	2B	GND	3A	3B	3Y	4Y	4A	4B	VCC						
74268	OC	1Q	1D	2D	2Q	3D	3Q	GND	C	4Q	4D	5Q	5D	6D	6Q	VCC				
74270 S	ADG	ADF	ADE	ADD	ADA	ADB	ADC	GND	DO4	DO3	DO2	DO1	S	ADI	ADH	VCC				
74271 S	ADA	ADB	ADC	ADD	ADE	DO1	DO2	DO3	DO4	GND	DO5	DO6	DO7	DO8	S1	S2	ADF	ADG	ADH	VCC
74273 F, S, HC, LS, ALS, HCT	CR	1Q	1D	2D	2Q	3Q	3D	4D	4Q	GND	CK	5Q	5D	6D	6Q	7Q	7D	8D	8Q	VCC
74274 S	IA2n	IA2n¹	IA2n²	IA2n³	B2n	2n	2n¹	2n²	2n³	GND	2n⁴	2n⁵	2n	2n⁷	G1	G2	B2n¹	B2n²	B2n³	VCC
74275 S, LS	I2N	I2N	I2N	I2N	IC2N	IC2N	I2N	GND	Q2N	QC2N	Q2N1	Q2N2	ENG	I2N	I2N	VCC				
74276	CR	1J	1CK	1K	1Q	2Q	2K	2CK	2J	GND	PR	3J	3CK	3K	3Q	4Q	4K	4CK	4J	VCC
74278	IS	ID3	ID4	IP0	QP1	QY4	GND	QY3	QY2	QY1	NC	ID1	ID2	VCC						
74279 LS	1R	1S1	1S2	1Q	2R	2S	2Q	GND	3Q	3R	3S1	3S2	4Q	4R	4S	VCC				
74280 F, S, AS, HC, LS	IG	IH	NC	II	QEV	QOD	GND	IA	IB	IC	ID	IE	IF	VCC						
74281 S	IA1	IA2	RS1	RS0	RC	LIRQ	IA3	Cn	G	Cn+4	P	GND	QF3	QF2	QF1	QF0	MC	AS2	AS1	AS0
	RILO	CLK	DIA0	VCC																
74282 AS	G1	P1	G0	P0	G3	P3	S0	S1	P	GND	Cn+z	G	Cn	Cn+y	Cn+x	CnB	CnA	G2	P2	VCC
74283 F, S, HC, LS	SM2	B2	A2	SM1	A1	B1	C0	GND	C4	SM4	B4	A4	SM3	A3	B3	VCC				
74284	I2C	I2B	I2A	I1D	I1A	I1B	I1C	GND	QY7	QY6	QY5	QY4	ENGB	ENGA	I2D	VCC				
74285	I2C	I2B	I2A	I1D	I1A	I1B	I1C	GND	QY3	QY2	QY1	QY0	ENGB	ENGA	I2D	VCC				
74286 AS	G	H	XMIT	I	PARE	PAI/O	GND	A	B	C	D	E	F	VCC						
74287 S	ADG	ADF	ADE	ADD	ADA	ADB	ADC	GND	DO4	DO3	DO2	DO1	S1	S2	ADH	VCC				
74288 S	DO1	DO2	DO3	DO4	DO5	DO6	DO7	GND	DO8	ADA	ADB	ADC	ADD	ADE	S	VCC				
74289 F, S, LS	AO	S	R/W	DI1	DO1	DI2	DO2	GND	DO3	DI3	DO4	DI4	ADD	ADC	ADB	VCC				
74290 LS	R9(1)	NC	R9(2)	QC	QB	NC	GND	QD	QA	IA	IB	R0(1)	R0(2)	VCC						
74292 LS	B	E	TP1	CK1	CK2	TP2	Q	GND	NC	A	CR	NC	TP3	D	C	VCC				
74293 LS	NC	NC	NC	QC	QB	NC	GND	QD	QA	IA	IB	R0(1)	R0(2)	VCC						
74294 LS	B	A	TP	CK1	CK2	NC	Q	GND	NC	NC	CR	NC	NC	D	C	VCC				
74295 LS	SI	IA	IB	IC	ID	MC	GND	OC	CLK	QD	QC	QB	QA	VCC						
74297 LS	B	A	ENCR	KCLK	IDCK	D/U	I/DQ	GND	ØA1	ØB	XOPD	ECPD	ØA2	D	C	VCC				
74298 AS, HC, LS	IB2	IA2	IA1	IB1	IC2	ID2	ID1	GND	DIC1	WS	CLK	QD	QC	QB	QA	VCC				
74299 F, S, AS, HC, LS, ALS, HCT	S0	QG1	QG2	G/OG	E/QE	C/QC	A/QA	QA'	CLR	GND	SR	CLK	B/QB	D/QD	F/QF	H/QH	QH'	SL	S1	VCC
74300	ADA	ADB	S1	S2	S3	DO	ADD	GND	ADE	ADF	ADG	W	DI	ADH	ADC	VCC				
74301 S	ADA	ADB	S1	S2	S3	Q	ADD	GND	ADE	ADF	ADG	WEN	DI	ADH	ADC	VCC				
74302	ADA	ADB	E1	E2	E3	DO	ADD	GND	ADE	ADF	ADG	W	DI	ADH	ADC	VCC				
74310 LS	E1	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y	E2	VCC
74314	S	ADA	ADB	ADC	ADD	ADE	DO	GND	ADF	ADG	ADH	ADI	ADJ	W	DI	VCC				
74315	E	ADA	ADB	ADC	ADD	ADE	DO	GND	ADF	ADG	ADH	ADI	ADJ	W	DI	VCC				
74319 F, LS	AO	S	R/W	D1	Q1	D2	Q2	GND	Q3	D3	Q4	D4	A3	A2	A1	VCC				
74320 LS	TK1	TK2	GN1	FFQ	FFD	NC	F	GN2	FP	FP	VCP	F	NC	XT1	XT2	VCC				
74321 LS	TK1	TK2	GN1	FFQ	FFD	F/4	F	GN2	FP	FP	VCP	F	F/2	XT1	XT2	VCC				
74322 F, LS, HCT	G	PS	DO	AQA	CQC	EQE	GQG	OE	CR	GND	CK	QHP	HQH	FQF	DQD	BQB	D1	SE	DS	VCC
74323 F, AS, LS, ALS	S0	QG1	QG2	G/OG	E/QE	C/QC	A/QA	QA'	CR	GND	SR	CLK	B/QB	D/QD	F/QF	H/QH	QH'	SL	S1	VCC
74333 LS	I8	I7	I6	I5	I4	I3	I2	I1	I0	F0	F1	GND	F2	F3	F4	F5	CE1	LE	PM	PL
	I11/CE	I10	I9	VCC																
74335 LS	I8	I7	I6	I5	I4	I3	I2	I1	I0	F0	F1	GND	F2	F3	F4	F5	CE1	LE	PM	PL
	I11/CE	I10	I9	VCC																
74340 S	1G	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	2G	VCC
74341 S	1G	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	2G	VCC
74344 S	1G	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	2G	VCC
74347 LS	B	C	LT	RBO	RBI	D	A	GND	QE	QD	QC	QB	QA	QG	QF	VCC				
74348 S, LS	I4	I5	I6	I7	IE1	QA2	QA1	GND	QA0	I0	I1	I2	I3	QGS	QEO	VCC				
74350 F, S	D-3	D-2	D-1	D0	D1	D2	D3	GND	S1	S0	Y3	Y2	OE	Y1	Y0	VCC				
74351	1Y	ENG	SIA	SIB	SIC	I1D0	I1D1	I1D2	I1D3	GND	ID7	ID6	ID5	ID4	I2D3	I2D2	I2D1	I2D0	2Y	VCC
74352 F, AS, LS, ALS	S1G	SELB	I1C3	I1C2	I1C1	I1C0	Q1Y	GND	Q2Y	I2C0	I2C1	I2C2	I2C3	SELA	S2G	VCC				

• 74C • 74F • 74H • 74L • 74S • 74AS **74353-74451** • 74HC • 74LS • 74SC • 74ALS • 74HCT

PINS ⇨	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
74353 F, AS, LS, ALS	QC1G	SELB	I1C3	I1C2	I1C1	I1C0	Q1Y	GND	Q2Y	I2C0	I2C1	I2C2	I2C3	SELA	Q2G	VCC				
74354 HC, LS	D7	D6	D5	D4	D3	D2	D1	D0	CLK	GND	SC	S2	S1	S0	G1	G2	G3	W	Y	VCC
74355 LS	D7	D6	D5	D4	D3	D2	D1	D0	CLK	GND	SC	S2	S1	S0	G1	G2	G3	W	Y	VCC
74356 LS, HC	D7	D6	D5	D4	D3	D2	D1	D0	CLK	GND	SC	S2	S1	S0	G1	G2	G3	W	Y	VCC
74357 LS	D7	D6	D5	D4	D3	D2	D1	D0	CLK	GND	SC	S2	S1	S0	G1	G2	G3	W	Y	VCC
74362	TK1	TK2	GN1	FFQ	FFD	P4	P3	P3	P4	GN2	P2	P1	VDD	P1	P2	00	OI	XT1	XT2	VCC
74363 LS	OC	1Q	1D	2D	2Q	3Q	3D	4D	4Q	GND	G	5Q	5D	6D	6Q	7Q	7D	8D	8Q	VCC
74364 LS	OC	1Q	1D	2D	2Q	3Q	3D	4D	4Q	GND	CLK	5Q	5D	6D	6Q	7Q	7D	8D	8Q	VCC
74365 AS, HC, LS, ALS	G1	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	G2	VCC				
74366 AS, HC, LS, ALS	G1	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	G2	VCC				
74367 HC, LS, ALS	G1	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	G2	VCC				
74368 HC, LS, ALS	G1	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	G2	VCC				
74370 S	ADG	ADF	ADE	ADD	ADA	ADB	ADC	GND	DO4	DO3	DO2	DO1	S	ADI	ADH	VCC				
74371 S	ADA	ADB	ADC	ADD	ADE	DO1	DO2	DO3	DO4	GND	DO5	DO6	DO7	DO8	S1	S2	ADF	ADG	ADH	VCC
74373 F, S, AS, HC, LS, SC, ALS, HCT	OC	1Q	1D	2D	2Q	3Q	3D	4D	4Q	GND	C	5Q	5D	6D	6Q	7Q	7D	8D	8Q	VCC
74374 F, S, AS, HC, LS, SC, ALS, HCT	QC	1Q	1D	2D	2Q	3Q	3D	4D	4Q	GND	CK	5Q	5D	6D	6Q	7Q	7D	8D	8Q	VCC
74375 LS	1D	1Q	1Q	EN1-2	2Q	2Q	2D	GND	3D	3Q	3Q	EN3-4	4Q	4Q	4D	VCC				
74376	CLR	1J	1K	1Q	2Q	2K	2J	GND	CLK	3J	3K	3Q	4Q	4K	4J	VCC				
74377 S, LS	ENG	1Q	1D	2D	2Q	3Q	3D	4D	4Q	GND	CLK	5Q	5D	6D	6Q	7Q	7D	8D	8Q	VCC
74378 F, LS	ENG	1Q	1D	2D	2Q	3D	3Q	GND	CLK	4Q	4D	5Q	5D	6D	6Q	VCC				
74379 F, LS	ENG	1Q	1Q	1D	2D	2Q	2Q	GND	CLK	3Q	3D	4D	4Q	4Q	4Q	VCC				
74380 LS	CK	LD	D0	D1	D2	D3	D4	D5	D6	D7	POL	GND	OE	PR	Q7	Q6	Q5	Q4	Q3	Q2
	Q1	Q0	CLR	VCC																
74381 F, S, LS	IA1	IB1	IA0	IB0	IS0	IS1	IS2	QF0	QF1	GND	QF2	QF3	QG	QP	ICN	IB3	IA3	IB2	IA2	VCC
74382 F, LS	A1	B1	A0	B0	S0	S1	S2	F0	F1	GND	F2	F3	OVR	CN4	CN	B3	A3	B2	A2	VCC
74383 S	CKEN	1Q	1D	2D	2Q	3Q	3D	4D	4Q	GND	CK	5Q	5D	6D	6Q	7Q	7D	8D	8Q	VCC
74384 F, LS	CLR	X3	X2	X1	X0	PRD	CLK	GND	MOD	K	X7	X6	X5	X4	Y	VCC				
74385 F, LS	CLK	1S	1SA	1B	1A	2A	2B	2SA	2S	GND	CLR	3S	3SA	3B	3A	4A	4B	4SA	4S	VCC
74386 LS	1A	1B	1Y	2Y	2A	2B	GND	3A	3B	3Y	4Y	4A	4B	VCC						
74387 S	ADG	ADF	ADE	ADD	ADA	ADB	ADC	GND	DO4	DO3	DO2	DO1	S1	S2	ADH	VCC				
74390 HC, LS, SC, HCT	1A	1CR	1QA	1B	1QB	1QC	1QD	GND	2QD	2QC	2QB	2B	2QA	2CR	2A	VCC				
74393 HC, LS, SC, HCT	1A	1CR	1QA	1QB	1QC	1QD	GND	2QD	2QC	2QB	2QA	2CR	2A	VCC						
74395 AS, LS	CLR	SI	IA	IB	IC	ID	LS	GND	QC	CLK	CQD	QD	QC	QB	QA	VCC				
74396 LS	2Q1	1Q1	D1	2Q2	1Q2	D2	CLK	GND	D3	1Q3	2Q3	D4	1Q4	2Q4	G	VCC				
74398 F, LS	WSEL	QA	QA	A1	A2	B2	B1	QB	QB	GND	CLK	QC	QC	C1	C2	D2	D1	QD	QD	VCC
74399 F, LS	WS	QA	A1	A2	B2	B1	QB	GND	CK	QC	C1	C2	D2	D1	QD	VCC				
74412 S	SEL1	MC	DI1	DO1	DI2	DO2	DI3	DO3	DI4	DO4	STB	GND	SEL2	CLR	DO5	DI5	DO6	DI6	DO7	DI7
	DO8	DI8	INT	VCC																
74422 LS	A1	A2	B1	B2	CR	Q	GND	Q	RIN	NC	CAP	NC	RC	VCC						
74423 HC, LS	1A	1B	1CR	1Q	2Q	2CP	2RC	GND	2A	2B	2CR	2Q	1Q	1CP	1RC	VCC				
74424	R0	R1	RD1	RD0	S1	PT	S0	GND	VDD	P2	P1	OSC	TNK	X2	X1	VCC				
74425	1G	1A	1Y	2G	2A	2Y	GND	3Y	3A	3G	4Y	4A	4G	VCC						
74426	1G	1A	1Y	2G	2A	2Y	GND	3Y	3A	3G	4Y	4A	4G	VCC						
74428 S	STS	HLDA	WR	DBIN	DB4	D4	DB7	D7	DB3	D3	DB2	D2	DB0	GND	D0	DB1	D1	DB5	D5	DB6
	D6	BUS	INTA	MEMR	I/OR	MEMW	I/OW	VCC												
74436 S	G1	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	G2	VCC				
74437 S	G1	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	G2	VCC				
74438 S	STS	HLDA	WR	DBIN	DB4	D4	DB7	D7	DB3	D3	DB2	D2	DB0	GND	D0	DB1	D1	DB5	D5	DB6
	D6	BUS	INTA	MEMR	I/OR	MEMW	I/OW	VCC												
74440 LS	CS	B1	C1	C2	B2	B3	C3	C4	B4	GND	S0	S1	A4	A3	A2	A1	GA	GB	GC	VCC
74441 LS	CS	B1	C1	C2	B2	B3	C3	C4	B4	GND	S0	S1	A4	A3	A2	A1	GA	GB	GC	VCC
74442 LS	CS	B1	C1	C2	B2	B3	C3	C4	B4	GND	S0	S1	A4	A3	A2	A1	GA	GB	GC	VCC
74443 LS	CS	B1	C1	C2	B2	B3	C3	C4	B4	GND	S0	S1	A4	A3	A2	A1	GA	GB	GC	VCC
74444 LS	CS	B1	C1	C2	B2	B3	C3	C4	B4	GND	S0	S1	A4	A3	A2	A1	GA	GB	GC	VCC
74445 LS	Q0	Q1	Q2	Q3	Q4	Q5	Q6	GND	Q7	Q8	Q9	D	C	B	A	VCC				
74446 LS	GBA	A1	DR2	A2	A3	DR3	A4	GND	B4	DR4	B3	B2	DR1	B1	GAB	VCC				
74447 LS	B	C	LT	RBO	RBI	D	A	GND	e	d	c	b	a	g	f	VCC				
74448 LS	CS	B1	C1	C2	B2	B3	C3	C4	B4	GND	S0	S1	A4	A3	A2	A1	GA	GB	GC	VCC
74449 F, LS	GBA	A1	DR2	A2	A3	DR3	A4	GND	B4	DR4	B3	B2	DR1	B1	GAB	VCC				
74450 LS	E0	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	GND	E11	E12	E13	E14	E15	W	Y	D
	C	B	A	VCC																
74451 LS	1D0	1D1	1D2	1D3	1D4	1D5	1D6	1D7	2D0	2D1	2D2	GND	2D3	2D4	2D5	2D6	2D7	2Y	1Y	S
	C	B	A	VCC																

INTEGRATED CIRCUIT PIN-OUTS

PART NUMBER: **JE-TTL Plastic Chart** (6 PAGES / 3 SHEETS) 8½" x 11" . . . **$14.95/Set**

1355 SHOREWAY ROAD
BELMONT, CA 94002

PINS ⇨	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
74453 LS	1C0	1C1	1C2	1C3	2C0	2C1	2C2	2C3	3C0	3C1	3C2	GND	3C3	4C0	4C1	4C2	4Y	3Y	2Y	1Y
	4C3	B	A	VCC																
74454 S	A6	A5	A4	A3	A0	A1	A2	A10	GND	$\overline{G}$	Q3	Q2	Q1	Q0	A9	A8	A7	VCC		
74455 S	A6	A5	A4	A3	A0	A1	A2	A10	GND	$\overline{G}$	Q3	Q2	Q1	Q0	A9	A8	A7	VCC		
74460 LS	A0	B0	A1	B1	A2	B2	A3	B3	A4	B4	A5	GND	B5	A6	B6	A7	B7	EQ	NE	A8
	B8	A9	B9	VCC																
74461 LS	CK	I0	D0	D1	D2	D3	D4	D5	D6	D7	I1	GND	$\overline{OE}$	$\overline{CO}$	Q7	Q6	Q5	Q4	Q3	Q2
	Q1	Q0	$\overline{CI}$	VCC																
74465 LS, ALS	$\overline{G1}$	A1	Y1	A2	Y2	A3	Y3	A4	Y4	GND	Y5	A5	Y6	A6	Y7	A7	Y8	A8	$\overline{G2}$	VCC
74466 LS, ALS	$\overline{G1}$	A1	Y1	A2	Y2	A3	Y3	A4	Y4	GND	Y5	A5	Y6	A6	Y7	A7	Y8	A8	$\overline{G2}$	VCC
74467 LS, ALS	$1\overline{G}$	1A1	1Y1	1A2	1Y2	1A3	1Y3	1A4	1Y4	GND	2Y1	2A1	2Y2	2A2	2Y3	2A3	2Y4	2A4	$2\overline{G}$	VCC
74468 LS, ALS	$1\overline{G}$	1A1	1Y1	1A2	1Y2	1A3	1Y3	1A4	1Y4	GND	2Y1	2A1	2Y2	2A2	2Y3	2A3	2Y4	2A4	$2\overline{G}$	VCC
74469 LS	CK	$\overline{LD}$	D0	D1	D2	D3	D4	D5	D6	D7	$\overline{UD}$	GND	$\overline{OE}$	$\overline{CBO}$	Q7	Q6	Q5	Q4	Q3	Q2
	Q1	Q0	$\overline{CBI}$	VCC																
74470 S	ADA	ADB	ADC	ADD	ADE	DO1	DO2	DO3	DO4	GND	DO5	DO6	DO7	DO8	$\overline{S1}$	$\overline{S2}$	ADF	ADG	ADH	VCC
74471 S	ADA	ADB	ADC	ADD	ADE	DO1	DO2	DO3	DO4	GND	DO5	DO6	DO7	DO8	$\overline{S1}$	$\overline{S2}$	ADF	ADG	ADH	VCC
74472 S	ADA	ADB	ADC	ADD	ADE	DO1	DO2	DO3	DO4	GND	DO5	DO6	DO7	DO8	$\overline{S}$	ADF	ADG	ADH	ADI	VCC
74473 S	ADA	ADB	ADC	ADD	ADE	DO1	DO2	DO3	DO4	GND	DO5	DO6	DO7	DO8	$\overline{S}$	ADF	ADG	ADH	ADI	VCC
74474 S	ADH	ADG	ADF	ADE	ADD	ADC	ADB	ADA	DO1	DO2	DO3	GND	DO4	DO5	DO6	DO7	DO8	S4	S3	$\overline{S2}$
	$\overline{S1}$	NC	AD1	VCC																
74475 S	ADH	ADG	ADF	ADE	ADD	ADC	ADB	ADA	DO1	DO2	DO3	GND	DO4	DO5	DO6	DO7	DO8	S4	S3	$\overline{S2}$
	$\overline{S1}$	NC	AD1	VCC																
74476 S	A6	A5	A4	A3	A0	A1	A2	$\overline{G1}$	GND	$\overline{G2}$	Q3	Q2	Q1	Q0	A9	A8	A7	VCC		
74477 S, LS	A6	A5	A4	A3	A0	A1	A2	$\overline{G1}$	GND	$\overline{G2}$	Q3	Q2	Q1	Q0	A9	A8	A7	VCC		
74478 S, LS	A7	A6	A5	A4	A3	A2	A1	A0	Q0	Q1	Q2	GND	Q3	Q4	Q5	Q6	Q7	G2	G3	$\overline{G1}$
	$\overline{G4}$	A9	A8	VCC																
74479 S	A7	A6	A5	A4	A3	A2	A1	A0	Q0	Q1	Q2	GND	Q3	Q4	Q5	Q6	Q7	G2	G3	$\overline{G1}$
	$\overline{G4}$	A9	A8	VCC																
74481 S, LS	B1/02	B1/03	A13	A12	A21	A20	OP0	OP1	OP2	OP3	OP7	VCC	OP6	OP5	OP8	OP9	OP4	C-in	POS	Y/AG
	X/LG	C-out	EQ	$\overline{LDWR}$	WRLT	WRRT	XWRL	XWRR	DO	D1	DOP3	DOP2	DOP1	DOP0	$\overline{INC}$	GND	$\overline{CCO}$	AOP0	AOP1	AOP2
	AOP3	AOSE	$\overline{INC}$	$\overline{CCI}$	CLK	BI/00	BI/01	BI/0S												
74482 S	IS4	IS3	C-out	C-in	IS1	IS2	IA3	IA2	IA1	GND	A0	QF3	QF2	QF1	QF0	$\overline{CLR}$	IS6	IS5	CLK	VCC
74484 S	E	D	C	B	A	Y1	Y2	Y3	Y4	GND	Y5	Y6	Y7	Y8	$\overline{G1}$	$\overline{G2}$	H	G	F	VCC
74485 S	E	D	C	B	A	Y1	Y2	Y3	Y4	GND	Y5	Y6	Y7	Y8	$\overline{G1}$	$\overline{G2}$	H	G	F	VCC
74490 LS	1CLK	1CLR	1QA	1SET	1QB	1QC	1QD	GND	2QD	2QC	2QB	2SET	2QA	2CLR	2CLK	VCC				
74491 LS	CK	D0	D1	D2-7	D8	D9	$\overline{LD}$	$\overline{CNT}$	$\overline{UP}$	ST	$\overline{C1N}$	GND	$\overline{OE}$	Q9	Q8	Q7	Q6	Q5	Q4	Q3
	Q2	Q1	Q0	VCC																
74498 LS	CK	I0	D0	D1	D2	D3	D4	D5	D6	D7	I1	GND	$\overline{OE}$	RILO	Q7	Q6	Q5	Q4	Q3	Q2
	Q1	Q0	LIRO	VCC																
74502 LS	QD	$\overline{CC}$	Q0	Q1	Q2	Q3	D	GND	CP	$\overline{S}$	Q4	Q5	Q6	Q7	$\overline{Q7}$	VCC				
74503 LS	E	$\overline{CC}$	Q0	Q1	Q2	Q3	D	GND	CP	$\overline{S}$	Q4	Q5	Q6	Q7	$\overline{Q7}$	VCC				
74504 LS	E	QD	$\overline{CC}$	Q0	Q1	Q2	Q3	Q4	Q5	NC	D	GND	CP	$\overline{S}$	NC	Q6	Q7	Q8	Q9	Q10
	Q11	NC	$\overline{Q11}$	VCC																
74518 ALS	$\overline{G}$	P0	Q0	P1	Q1	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	P7	Q7	P=Q	VCC
74519 ALS	$\overline{G}$	P0	Q0	P1	Q1	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	P7	Q7	P=Q	VCC
74520 ALS	$\overline{G}$	P0	Q0	P1	Q1	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	P7	Q7	$\overline{P=Q}$	VCC
74521 F, HC, ALS, HCT	$\overline{G}$	P0	Q0	P1	Q1	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	P7	Q7	$\overline{P=Q}$	VCC
74522 ALS	$\overline{G}$	P0	Q0	P1	Q1	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	P7	Q7	$\overline{P=Q}$	VCC
74524 F	S0	I/00	I/01	I/02	I/03	I/04	I/05	I/06	I/07	GND	CP	M	LT	GT	EQ	C/SO	C/SI	$\overline{SE}$	S1	VCC
74526 ALS	$\overline{G}$	P0	P1	P2	P3	P4	P5	P6	P7	GND	P8	P9	P10	P11	P12	P13	P14	P15	$\overline{P=Q}$	VCC
74527 ALS	$\overline{G}$	P0	P1	P2	P3	P4	P5	P6	P7	GND	P8	Q8	P9	Q9	P10	Q10	P11	Q11	$\overline{P=Q}$	VCC
74528 ALS	$\overline{G}$	P0	P1	P2	P3	P4	P5	GND	P6	P7	P8	P9	P10	P11	$\overline{P=Q}$	VCC				
74531 S	$\overline{OE}$	1Q	1D	2D	2Q	3Q	3D	4D	4Q	GND	G	5Q	5D	6D	6Q	7Q	7D	8D	8Q	VCC
74532 S	$\overline{OE}$	1Q	1D	2D	2Q	3Q	3D	4D	4Q	GND	CK	5Q	5D	6D	6Q	7Q	7D	8D	8Q	VCC
74533 F, S, AS, HC, LS, SC, ALS, HCT	$\overline{OC}$	1Q	1D	2D	2Q	3Q	3D	4D	4Q	GND	C	5Q	5D	6D	6Q	7Q	7D	8D	8Q	VCC
74534 F, S, AS, HC, LS, SC, ALS, HCT	$\overline{OC}$	1Q	1D	2D	2Q	3Q	3D	4D	4Q	GND	CLK	5Q	5D	6D	6Q	7Q	7D	8D	8Q	VCC
74535 S	$\overline{OE}$	1Q	1D	2D	2Q	3Q	3D	4D	4Q	GND	G	5Q	5D	6D	6Q	7Q	7D	8D	8Q	VCC
74536 S	$\overline{OE}$	1Q	1D	2D	2Q	3Q	3D	4D	4Q	GND	CK	5Q	5D	6D	6Q	7Q	7D	8D	8Q	VCC
74537 F	O2	O1	O0	P	$\overline{OE}$	A0	A1	O5	O6	GND	O7	O8	O9	E2	$\overline{E1}$	A2	A3	O4	O3	VCC
74538 F ALS	Y2	Y1	Y0	$\overline{OE1}$	$\overline{OE2}$	A	B	Y5	Y6	GND	Y7	AL	G1	G2	$\overline{G3}$	$\overline{G4}$	C	Y4	Y3	VCC
74539 F ALS	1Y2	1Y1	1Y0	1AL	$1\overline{OE}$	2A	2B	2Y3	2Y2	GND	2Y1	2Y0	2AL	$2\overline{OE}$	$2\overline{G}$	$1\overline{G}$	1A	1B	1Y3	VCC
74540 HC, LS, SC, ALS, HCT	$\overline{G1}$	A1	A2	A3	A4	A5	A6	A7	A8	GND	Y8	Y7	Y6	Y5	Y4	Y3	Y2	Y1	$\overline{G2}$	VCC
74541 HC, LS, SC, ALS, HCT	$\overline{G1}$	A1	A2	A3	A4	A5	A6	A7	A8	GND	Y8	Y7	Y6	Y5	Y4	Y3	Y2	Y1	$\overline{G2}$	VCC

PINS ⇨	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
74543 F	$\overline{LEBA}$	$\overline{OEBA}$	A0	A1	A2	A3	A4	A5	A6	A7	$\overline{CEAB}$	GND	$\overline{OEAB}$	$\overline{LEAB}$	B7	B6	B5	B4	B3	B2
	B1	B0	$\overline{CEBA}$	VCC																
74544 F	— SAME AS 74543, BUT THE 74544 HAS INVERTING OUTPUTS —																			
74545 F	A0	A1	A2	A3	A4	A5	A6	A7	$\overline{OE}$	GND	T/$\overline{R}$	B7	B6	B5	B4	B3	B2	B1	B0	VCC
74547 FI	$\overline{O2}$	$\overline{O1}$	$\overline{ACK}$	$\overline{WR}$	$\overline{R/D}$	A0	A1	$\overline{O5}$	$\overline{O6}$	GND	$\overline{O7}$	$\overline{O0}$	$\overline{E3}$	E2	$\overline{E1}$	LE	A2	$\overline{O4}$	$\overline{O3}$	VCC
74548 FI	$\overline{O2}$	$\overline{O1}$	$\overline{ACK}$	$\overline{WR}$	$\overline{R/D}$	A0	A1	$\overline{O5}$	$\overline{O6}$	GND	$\overline{O7}$	$\overline{O0}$	E4	E3	$\overline{E2}$	$\overline{E1}$	A2	$\overline{O4}$	$\overline{O3}$	VCC
74550 F	A3	A4	A5	CFBA	FBA	A6	A7	VCC	B7	B6	FAB	CFAB	B5	B4	B3	B2	B1	B0	$\overline{OEB}$	CPA
	$\overline{CEA}$	GND	$\overline{CEB}$	CPB	$\overline{OEA}$	A0	A1	A2												
74551 F	— SAME AS 74550, BUT THE 74551 HAS INVERTING OUTPUTS —																			
74557 F S	X0	X1	X2	X3	X4	X5	X6	X7	R	VCC	$\overline{LE}$	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	YM
	$\overline{OE}$	$\overline{S15}$	S15	S14	S13	S12	S11	S10	S9	GND	S8	S7	S6	S5	S4	S3	S2	S1	S0	XM
74558 F S	X0	X1	X2	X3	X4	X5	X6	X7	RS	VCC	RU	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	YM
	$\overline{OE}$	$\overline{S15}$	S15	S14	S13	S12	S11	S10	S9	GND	S8	S7	S6	S5	S4	S3	S2	S1	S0	XM
74560 ALS	$\overline{ALOD}$	CLK	A	B	C	D	ENP	$\overline{ACLR}$	$\overline{SCLR}$	GND	$\overline{SLOD}$	ENT	QD	QC	QB	QA	$\overline{G}$	CCO	RC0	VCC
74561 ALS	$\overline{ALOD}$	CLK	A	B	C	D	ENP	$\overline{ACLR}$	$\overline{SCLR}$	GND	$\overline{SLOD}$	ENT	QD	QC	QB	QA	$\overline{G}$	CCO	RC0	VCC
74563 HC, LS, SC, ALS, HCT	$\overline{OC}$	1D	2D	3D	4D	5D	6D	7D	8D	GND	C	8Q	7Q	6Q	5Q	4Q	3Q	2Q	1Q	VCC
74564 HC, LS, SC, ALS, HCT	$\overline{OC}$	1D	2D	3D	4D	5D	6D	7D	8D	GND	CLK	8Q	7Q	6Q	5Q	4Q	3Q	2Q	1Q	VCC
74568 F LS, ALS	U/$\overline{D}$	CLK	A	B	C	D	$\overline{ENP}$	$\overline{ACLR}$	$\overline{SCLR}$	GND	$\overline{LD}$	$\overline{ENT}$	QD	QC	QB	QA	$\overline{G}$	$\overline{CCO}$	$\overline{RCO}$	VCC
74569 F LS, ALS	U/$\overline{D}$	CLK	A	B	C	D	$\overline{ENP}$	$\overline{ACLR}$	$\overline{SCLR}$	GND	$\overline{LD}$	$\overline{ENT}$	QD	QC	QB	QA	$\overline{G}$	$\overline{CCO}$	$\overline{RCO}$	VCC
74570 S	A6	A5	A4	A3	A0	A1	A2	GND	Q4	Q3	Q2	Q1	$\overline{E1}$	A8	A7	VCC				
74571 S	A6	A5	A4	A3	A0	A1	A2	GND	Q4	Q3	Q2	Q1	$\overline{E1}$	A8	A7	VCC				
74572 S	A6	A5	A4	A3	A0	A1	A2	$\overline{E1}$	GND	$\overline{E2}$	Q4	Q3	Q2	Q1	A9	A8	A7	VCC		
74573 AS, HC, LS, SC, ALS, HCT	$\overline{OC}$	1D	2D	3D	4D	5D	6D	7D	8D	GND	C	8Q	7Q	6Q	5Q	4Q	3Q	2Q	1Q	VCC
74574 AS, HC, LS, SC, ALS, HCT	$\overline{OC}$	1D	2D	3D	4D	5D	6D	7D	8D	GND	CLK	8Q	7Q	6Q	5Q	4Q	3Q	2Q	1Q	VCC
74575 HC, ALS	$\overline{CLR}$	$\overline{OC}$	1D	2D	3D	4D	5D	6D	7D	8D	NC	GND	NC	CLK	8Q	7Q	6Q	5Q	4Q	3Q
	2Q	1Q	NC	VCC																
74576 AS, ALS	$\overline{OC}$	1D	2D	3D	4D	5D	6D	7D	8D	GND	CLK	8Q	7Q	6Q	5Q	4Q	3Q	2Q	1Q	VCC
74577 AS, ALS	$\overline{CLR}$	$\overline{OC}$	1D	2D	3D	4D	5D	6D	7D	8D	NC	GND	NC	CLK	8Q	7Q	6Q	5Q	4Q	3Q
	2Q	1Q	NC	VCC																
74580 AS, ALS	$\overline{OC}$	1D	2D	3D	4D	5D	6D	7D	8D	GND	C	8Q	7Q	6Q	5Q	4Q	3Q	2Q	1Q	VCC
74588 F	A0	A1	A2	A3	A4	A5	A6	A7	$\overline{OE}$	GND	T/$\overline{R}$	B7	B6	B5	B4	B3	B2	B1	B0	VCC
74589 HC, LS	B	C	D	E	F	G	H	GND	QH'	$\overline{OC}$	SRCK	RCK	$\overline{SRLD}$	SER	A	VCC				
74590 HC, LS, HCT	QB	QC	QD	QE	QF	QG	QH	GND	$\overline{RCO}$	$\overline{CLR}$	CLK	$\overline{EC}$	RCK	$\overline{G}$	QA	VCC				
74591 LS	QB	QC	QD	QE	QF	QG	QH	GND	$\overline{RCO}$	$\overline{CLR}$	CLK	$\overline{EC}$	RCK	$\overline{G}$	QA	VCC				
74592 HC, LS, HCT	IB	IC	ID	IE	IF	IG	IH	GND	$\overline{RCO}$	$\overline{CLR}$	CLK	$\overline{EC}$	RCK	$\overline{CLD}$	IA	VCC				
74593 HC, LS, HCT	AQA	BQB	CQC	DQD	EQE	FQF	GQG	HQH	$\overline{CLD}$	GND	$\overline{RCO}$	$\overline{CLR}$	CLK	$\overline{EC}$	EC	RCK	$\overline{REK}$	$\overline{G}$	G	VCC
74594 LS	QB	QC	QD	QE	QF	QG	QH	GND	QH'	$\overline{SRCR}$	SRCK	RCK	$\overline{RCLR}$	SER	QA	VCC				
74595 HC, LS	QB	QC	QD	QE	QF	QG	QH	GND	QHP	$\overline{SCLR}$	$\overline{SCK}$	RCK	$\overline{G}$	SER	QA	VCC				
74596 LS	QB	QC	QD	QE	QF	QG	QH	GND	QHP	$\overline{SCLR}$	SCK	RCK	$\overline{G}$	SER	QA	VCC				
74597 HC, LS	IB	IC	ID	IE	IF	IG	IH	GND	QHP	$\overline{SCLR}$	SCK	RCK	$\overline{SLD}$	SER	IA	VCC				
74598 LS	AQA	BQB	CQC	DQD	EQE	FQF	GQG	HQH	$\overline{SLD}$	GND	QHP	$\overline{SCLR}$	$\overline{SRCK}$	$\overline{SCKN}$	$\overline{ACK}$	$\overline{G}$	SER1	SER0	DS	VCC
74599 LS	QB	QC	QD	QE	QF	QG	QH	GND	QH'	$\overline{SRCR}$	SRCK	RCK	$\overline{RCLR}$	SER	QA	VCC				
74600 LS	$\overline{BUSY}$	A0	A1	A2	A3	A4	A5	A6	4K/16K	GND	$\overline{RASHi}$	$\overline{RASLo}$	REQ1	REQ2	$\overline{RAS}$	$\overline{HOLD}$	LRCO	RRCO	RCBT	VCC
74601 LS	$\overline{BUSY}$	A0	A1	A2	A3	A4	A5	A6	A7	GND	$\overline{RASHi}$	$\overline{RASLo}$	REQ1	REQ2	$\overline{RAS}$	$\overline{HOLD}$	LRCO	RRCO	RCBT	VCC
74602 LS	$\overline{BUSY}$	A0	A1	A2	A3	A4	A5	A6	4K/16K	GND	$\overline{RASHi}$	$\overline{RASLo}$	REQ1	REQ2	$\overline{RAS}$	$\overline{HOLD}$	REDY	RCCS	RCBT	VCC
74603 LS	$\overline{BUSY}$	A0	A1	A2	A3	A4	A5	A6	A7	GND	$\overline{RASHi}$	$\overline{RASLo}$	REQ1	REQ2	$\overline{RAS}$	$\overline{HOLD}$	$\overline{REDY}$	RCCS	RCBT	VCC
74604 LS	CLK	A/$\overline{B}$	A1	B1	A2	B2	A3	B3	A4	B4	Y4	Y3	Y2	GND	Y1	Y5	Y6	Y7	Y8	B8
	A8	B7	A7	B6	A6	B5	A5	VCC												
74605 LS	CLK	A/$\overline{B}$	A1	B1	A2	B2	A3	B3	A4	B4	Y4	Y3	Y2	GND	Y1	Y5	Y6	Y7	Y8	B8
	A8	B7	A7	B6	A6	B5	A5	VCC												
74606 LS	CLK	A/$\overline{B}$	A1	B1	A2	B2	A3	B3	A4	B4	Y4	Y3	Y2	GND	Y1	Y5	Y6	Y7	Y8	B8
	A8	B7	A7	B6	A6	B5	A5	VCC												
74607 LS	CLK	A/$\overline{B}$	A1	B1	A2	B2	A3	B3	A4	B4	Y4	Y3	Y2	GND	Y1	Y5	Y6	Y7	Y8	B8
	A8	B7	A7	B6	A6	B5	A5	VCC												
74608 LS	PREC	P/$\overline{N}$	R/$\overline{W}$	RMW	R/WQ	RASEN	$\overline{RAS}$	GND	$\overline{CAS}$	CASH	R/$\overline{COL}$	RRAH	SRT	Refr	CASLo	VCC				
74610 LS	RS2	MA3	RS3	$\overline{CS}$	$\overline{STRB}$	R/$\overline{W}$	D0	D1	D2	D3	D4	D5	$\overline{MM}$	M00	M01	M02	M03	M04	M05	GND
	$\overline{ME}$	M06	M07	M08	M09	M010	M011	C	D6	D7	D8	D9	D10	D11	MA0	RS0	MA1	RS1	MA2	VCC
74611 LS	RS2	MA3	RS3	$\overline{CS}$	$\overline{STRB}$	R/$\overline{W}$	D0	D1	D2	D3	D4	D5	$\overline{MM}$	M00	M01	M02	M03	M04	M05	GND
	$\overline{ME}$	M06	M07	M08	M09	M010	M011	C	D6	D7	D8	D9	D10	D11	MA0	RS0	MA1	RS1	MA2	VCC
74612 LS	RS2	MA3	RS3	$\overline{CS}$	$\overline{STRB}$	R/$\overline{W}$	D0	D1	D2	D3	D4	D5	$\overline{MM}$	M00	M01	M02	M03	M04	M05	GND
	$\overline{ME}$	M06	M07	M08	M09	M010	M011	NC	D6	D7	D8	D9	D10	D11	MA0	RS0	MA1	RS1	MA2	VCC
74613 LS	RS2	MA3	RS3	$\overline{CS}$	$\overline{STRB}$	R/$\overline{W}$	D0	D1	D2	D3	D4	D5	$\overline{MM}$	M00	M01	M02	M03	M04	M05	GND
	$\overline{ME}$	M06	M07	M08	M09	M010	M011	NC	D6	D7	D8	D9	D10	D11	MA0	RS0	MA1	RS1	MA2	VCC

INTEGRATED CIRCUIT PIN-OUTS

PART NUMBER **JE-TTL Plastic Chart** (6 PAGES / 3 SHEETS) 8½" X 11" . . . $14.95/Set

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1355 SHOREWAY ROAD
BELMONT, CA 94002

INTEGRATED CIRCUIT PIN-OUTS

PART NUMBER JE-TTL Plastic Chart (6 PAGES / 3 SHEETS) 8½" x 11" . . . $14.95/Set Page 5 of 6

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• 74C • 74F • 74H • 74L • 74S • 74AS **74618-74674** • 74HC • 74LS • 74SC • 74ALS • 74HCT

PINS ⇨	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
74618 LS	1A	1B	NC	1C	1D	1Y	2A	2B	NC	GND	2Y	NC	2C	2D	3Y	3A	3B	3C	3D	VCC
74619 LS	1A	1Y	NC	2A	2Y	3A	3Y	4A	4Y	GND	5Y	5A	NC	6Y	6A	7Y	7A	8Y	8A	VCC
74620 AS, LS, ALS	GAB	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	$\overline{GBA}$	VCC
74621 AS, LS, ALS	GAB	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	$\overline{GBA}$	VCC
74622 AS, LS, ALS	GAB	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	$\overline{GBA}$	VCC
74623 AS, LS, ALS	GAB	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	$\overline{GBA}$	VCC
74624 LS	0GND	RAN	CX1	CX2	$\overline{EN}$	QY	GND	QZ	VCC	NC	NC	NC	FREQ	0VCC						
74625 LS	GND	Q1Z	Q1Y	1CX1	1CX2	1FREQ	1VCC	1GND	2GND	2VCC	2FREQ	2CX2	2CX1	Q2Y	Q2Z	VCC				
74626 LS	GND	Q1Z	Q1Y	1$\overline{EN}$	1CX1	1CX2	0VCC	0GND	1FREQ	2FREQ	2CX2	2CX1	2$\overline{EN}$	Q2Y	Q2Z	VCC				
74627 LS	1VCC	1FREQ	1CX1	1CX2	1GND	Q1Y	GND	Q2Y	2GND	2CX2	2CX1	2FREQ	2VCC	VCC						
74628 LS	0GND	RAN	CX1	CX2	$\overline{EN}$	QY	GND	QZ	VCC	NC	Rext	Rext	FREQ	0VCC						
74629 LS	FREQ2	FREQ1	RAN1	1Cex1	1Cex2	1$\overline{EN}$	Q1Y	0GND	GND	Q2Y	2$\overline{EN}$	2Cex1	2Cex2	RAN2	0VCC	VCC				
74630 LS	DEF	DB0	DB1	DB2	DB3	DB4	DB5	DB6	DB7	DB8	DB9	DB10	DB11	GND	DB12	DB13	DB14	DB15	CB5	CB4
	CB3	CB2	CB1	CB0	SO	SI	SEF	VCC												
74631 LS	DEF	DB0	DB1	DB2	DB3	DB4	DB5	DB6	DB7	DB8	DB9	DB10	DB11	GND	DB12	DB13	DB14	DB15	CB5	CB4
	CB3	CB2	CB1	CB0	SO	SI	SEF	VCC												
74632 ALS	LEDB	MERR	ERR	DB0	DB1	DB2	DB3	DB4	DB5	$\overline{OEB0}$	DB6	DB7	GND	DB8	DB9	$\overline{OEB1}$	DB10	DB11	DB12	DB13
	DB14	DB15	CB6	CB5	CB4	$\overline{OECB}$	CB3	CB2	CB1	CB0	DB16	DB17	DB18	DB19	DB20	DB21	$\overline{OEB2}$	DB22	DB23	GND
	DB24	DB25	$\overline{OEB3}$	DB26	DB27	DB28	DB29	DB30	DB31	SO	SI	VCC								
74633 ALS	LEDB	MERR	ERR	DB0	DB1	DB2	DB3	DB4	DB5	$\overline{OEB0}$	DB6	DB7	GND	DB8	DB9	$\overline{OEB1}$	DB10	DB11	DB12	DB13
	DB14	DB15	CB6	CB5	CB4	$\overline{OECB}$	CB3	CB2	CB1	CB0	DB16	DB17	DB18	DB19	DB20	DB21	$\overline{OEB2}$	DB22	DB23	GND
	DB24	DB25	$\overline{OEB3}$	DB26	DB27	DB28	DB29	DB30	DB31	SO	SI	VCC								
74634 ALS	MERR	ERR	DB0	DB1	DB2	DB3	DB4	DB5	$\overline{OEDB}$	DB6	DB7	GND	DB8	DB9	DB10	DB11	DB12	DB13	DB14	DB15
	CB6	CB5	CB4	$\overline{OECB}$	CB3	CB2	CB1	CB0	DB16	DB17	DB18	DB19	DB20	DB21	DB22	DB23	GND	DB24	DB25	DB26
	DB27	DB28	DB29	DB30	DB31	SO	SI	VCC												
74635 ALS	MERR	ERR	DB0	DB1	DB2	DB3	DB4	DB5	$\overline{OEDB}$	DB6	DB7	GND	DB8	DB9	DB10	DB11	DB12	DB13	DB14	DB15
	CB6	CB5	CB4	$\overline{OECB}$	CB3	CB2	CB1	CB0	DB16	DB17	DB18	DB19	DB20	DB21	DB22	DB23	GND	DB24	DB25	DB26
	DB27	DB28	DB29	DB30	DB31	SO	SI	VCC												
74636 LS	DEF	DB0	DB1	DB2	DB3	DB4	DB5	DB6	DB7	GND	CB4	NC	CB3	CB2	CB1	CB0	SO	SI	SEF	VCC
74637 LS	DEF	DB0	DB1	DB2	DB3	DB4	DB5	DB6	DB7	GND	CB4	NC	CB3	CB2	CB1	CB0	SO	SI	SEF	VCC
74638 AS, LS, ALS	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	$\overline{G}$	VCC
74639 AS, LS, ALS	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	$\overline{G}$	VCC
74640 AS, HC, LS, ALS, HCT	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	$\overline{G}$	VCC
74641 AS, LS, ALS	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	$\overline{G}$	VCC
74642 AS, LS, ALS	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	$\overline{G}$	VCC
74643 AS, HC, LS, ALS, HCT	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	$\overline{G}$	VCC
74644 AS, LS, ALS	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	$\overline{G}$	VCC
74645 AS, LS, ALS	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1	$\overline{G}$	VCC
74646 AS, HC, LS, ALS	CAB	SAB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1
	$\overline{G}$	SBA	CBA	VCC																
74647 LS, ALS	CAB	SAB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1
	$\overline{G}$	SBA	CBA	VCC																
74648 AS, HC, LS, ALS	CAB	SAB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1
	$\overline{G}$	SBA	CBA	VCC																
74649 LS, ALS	CAB	SAB	DIR	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1
	$\overline{G}$	SBA	CBA	VCC																
74651 AS, LS, ALS	CAB	SAB	GAB	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1
	$\overline{GBA}$	SBA	CBA	VCC																
74652 AS, LS, ALS	CAB	SAB	GAB	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1
	$\overline{GBA}$	SBA	CBA	VCC																
74653 LS, ALS	CAB	SAB	GAB	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1
	$\overline{GBA}$	SBA	CBA	VCC																
74654 LS, ALS	CAB	SAB	GAB	A1	A2	A3	A4	A5	A6	A7	A8	GND	B8	B7	B6	B5	B4	B3	B2	B1
	$\overline{GBA}$	SBA	CBA	VCC																
74668 LS	U/D	CLK	A	B	C	D	$\overline{ENP}$	GND	$\overline{LD}$	$\overline{ENT}$	QD	QC	QB	QA	$\overline{RCO}$	VCC				
74669 LS	U/D	CLK	A	B	C	D	$\overline{ENP}$	GND	$\overline{LD}$	$\overline{ENT}$	QD	QC	QB	QA	$\overline{RCO}$	VCC				
74670 LS	D2	D3	D4	RB	RA	Q4	Q3	GND	Q2	Q1	ERD	EWT	WB	WA	D1	VCC				
74671 LS	SERR	SRCK	A	B	C	D	SERL	$\overline{SRCR}$	RCK	GND	R/$\overline{S}$	$\overline{G}$	SI	S0	QD	QC	QB	QA	CASC	VCC
74672 LS	SERR	SRCK	A	B	C	D	SERL	$\overline{SRCR}$	RCK	GND	R/S	$\overline{G}$	SI	S0	QD	QC	QB	QA	CASC	VCC
74673 F, LS	$\overline{CS}$	$\overline{SHCP}$	R/$\overline{W}$	$\overline{SCLR}$	MSCR	SQ15	Y0	Y1	Y2	Y3	Y4	GND	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12
	Y13	Y14	Y15	VCC																
74674 F, LS	$\overline{CS}$	CLK	R/$\overline{W}$	NC	MOD	SQ15	P0	P1	P2	P3	P4	GND	P5	P6	P7	P8	P9	P10	P11	P12
	P13	P14	P15	VCC																

• 74C • 74F • 74H • 74L • 74S • 74AS **74675-74825** • 74HC • 74LS • 74SC • 74ALS • 74HCT

PINS ⇨	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
74675 F	$\overline{CS}$	$\overline{SHCP}$	R/$\overline{W}$	SI	STCP	S0	Q0	Q1	Q2	Q3	Q4	GND	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
	Q13	Q14	Q15	VCC																
74677 ALS	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	GND	A12	A13	A14	A15	A16	P0	P1	P2
	P3	Y	$\overline{G}$	VCC																
74678 ALS	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	GND	A12	A13	A14	A15	A16	P0	P1	P2
	P3	Y	C	VCC																
74679 ALS	A1	A2	A3	A4	A5	A6	A7	A8	A9	GND	A10	A11	A12	P0	P1	P2	P3	Y	$\overline{G}$	VCC
74680 ALS	A1	A2	A3	A4	A5	A6	A7	A8	A9	GND	A10	A11	A12	P0	P1	P2	P3	Y	C	VCC
74681 LS	CLK	RS2	RS1	RS0	LI/RO	Cn	$\overline{G}$	Cn+4	P	GND	I/03	I/02	I/01	I/00	M	AS2	AS1	AS0	RI/LO	VCC
74682 LS	$\overline{PQ}$	P0	Q0	P1	Q1	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	P7	Q7	P=Q	VCC
74683 LS	$\overline{PQ}$	P0	Q0	P1	Q1	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	P7	Q7	P=Q	VCC
74684 LS	$\overline{PQ}$	P0	Q0	P1	Q1	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	P7	Q7	P=Q	VCC
74685 LS	$\overline{PQ}$	P0	Q0	P1	Q1	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	P7	Q7	P=Q	VCC
74686 LS	$\overline{PQ}$	$\overline{G1}$	P0	Q0	P1	Q1	NC	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	NC	P7
	Q7	P=Q	$\overline{G2}$	VCC																
74687 LS	$\overline{PQ}$	$\overline{G1}$	P0	Q0	P1	Q1	NC	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	NC	P7
	Q7	P=Q	$\overline{G2}$	VCC																
74688 HC, LS, ALS, HCT	$\overline{G}$	P0	Q0	P1	Q1	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	P7	Q7	P=Q	VCC
74689 LS, ALS	$\overline{G}$	P0	Q0	P1	Q1	P2	Q2	P3	Q3	GND	P4	Q4	P5	Q5	P6	Q6	P7	Q7	P=Q	VCC
74690 LS	CCLR	CCK	A	B	C	D	ENP	RCLR	RCK	GND	R/C	$\overline{G}$	LD	ENT	QD	QC	QB	QA	RCO	VCC
74691 LS	CCLR	CCK	A	B	C	D	ENP	RCLR	RCK	GND	R/C	$\overline{G}$	LD	ENT	QD	QC	QB	QA	RCO	VCC
74692 LS	CCLR	CCK	A	B	C	D	ENP	RCLR	RCK	GND	R/C	$\overline{G}$	LD	ENT	QD	QC	QB	QA	RCO	VCC
74693 LS	CCLR	CCK	A	B	C	D	ENP	RCLR	RCK	GND	R/C	$\overline{G}$	LD	ENT	QD	QC	QB	QA	RCO	VCC
74696 LS	U/D	CCK	A	B	C	D	ENP	CCLR	RCK	GND	R/C	$\overline{G}$	LD	ENT	QD	QC	QB	QA	RCO	VCC
74697 LS	U/D	CCK	A	B	C	D	ENP	CCLR	RCK	GND	R/C	$\overline{G}$	LD	ENT	QD	QC	QB	QA	RCO	VCC
74698 LS	U/D	CCK	A	B	C	D	ENP	CCLR	RCK	GND	R/C	$\overline{G}$	LD	ENT	QD	QC	QB	QA	RCO	VCC
74699 LS	U/D	CCK	A	B	C	D	ENP	CCLR	RCK	GND	R/C	$\overline{G}$	LD	ENT	QD	QC	QB	QA	RCO	VCC
74700 S	$\overline{E1}$	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	E2	VCC
74716 LS	Q3	D3	PE	GAT	D0	CK	Q0	GND	Q1	MR	D1	BUS	R	D2	Q2	VCC				
74718 LS	Q3	D3	PE	GAT	D0	CK	Q0	GND	Q1	MR	D1	BUS	R	D2	Q2	VCC				
74730 S	$\overline{E1}$	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	$\overline{E2}$	VCC
74731 S	$\overline{E1}$	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	E2	VCC
74734 S	$\overline{E1}$	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	$\overline{E2}$	VCC
74756 AS	1$\overline{G}$	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	2$\overline{G}$	VCC
74757 AS	1$\overline{G}$	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	2G	VCC
74758 AS	$\overline{GAB}$	NC	A1	A2	A3	A4	GND	B4	B3	B2	B1	NC	GBA	VCC						
74759 AS	$\overline{GAB}$	NC	A1	A2	A3	A4	GND	B4	B3	B2	B1	NC	GBA	VCC						
74760 AS	1$\overline{G}$	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	2$\overline{G}$	VCC
74762 AS	1$\overline{G}$	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	2G	VCC
74763 AS	1$\overline{G}$	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	2G	VCC
74793 LS	$\overline{OE}$	D0	D1	D2	D3	D4	D5	D6	D7	GND	G	Q7	Q6	Q5	Q4	Q3	Q2	Q1	Q0	VCC
74794 LS	$\overline{OE}$	D0	D1	D2	D3	D4	D5	D6	D7	GND	CK	Q7	Q6	Q5	Q4	Q3	Q2	Q1	Q0	VCC
74795 LS	G1	A1	Y1	A2	Y2	A3	Y3	A4	Y4	GND	Y5	A5	Y6	A6	Y7	A7	Y8	A8	G2	VCC
74796 LS	G1	A1	Y1	A2	Y2	A3	Y3	A4	Y4	GND	Y5	A5	Y6	A6	Y7	A7	Y8	A8	G2	VCC
74797 LS	G1	A1	Y1	A2	Y2	A3	Y3	A4	Y4	GND	Y5	A5	Y6	A6	Y7	A7	Y8	A8	G2	VCC
74798 LS	G1	A1	Y1	A2	Y2	A3	Y3	A4	Y4	GND	Y5	A5	Y6	A6	Y7	A7	Y8	A8	G2	VCC
74800 AS	1A	2A	2B	2C	2D	3A	3B	3C	3D	GND	3Z	3Y	2Y	2Z	1Z	1Y	1B	1C	1D	VCC
74802 AS	1A	2A	2B	2C	2D	3A	3B	3C	3D	GND	3Z	3Y	2Y	2Z	1Z	1Y	1B	1C	1D	VCC
74804 AS, ALS	1A	1B	1Y	2A	2B	2Y	3A	3B	3Y	GND	4Y	4A	4B	5Y	5A	5B	6Y	6A	6B	VCC
74805 AS, ALS	1A	1B	1Y	2A	2B	2Y	3A	3B	3Y	GND	4Y	4A	4B	5Y	5A	5B	6Y	6A	6B	VCC
74808 AS, ALS	1A	1B	1Y	2A	2B	2Y	3A	3B	3Y	GND	4Y	4A	4B	5Y	5A	5B	6Y	6A	6B	VCC
74810 AS, ALS	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
74811 AS, ALS	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
74821 AS	$\overline{OC}$	1D	2D	3D	4D	5D	6D	7D	8D	9D	10D	GND	CLK	10Q	9Q	8Q	7Q	6Q	5Q	4Q
	3Q	2Q	1Q	VCC																
74822 AS	$\overline{OC}$	1$\overline{D}$	2$\overline{D}$	3$\overline{D}$	4$\overline{D}$	5$\overline{D}$	6$\overline{D}$	7$\overline{D}$	8$\overline{D}$	9$\overline{D}$	10$\overline{D}$	GND	CLK	10Q	9Q	8Q	7Q	6Q	5Q	4Q
	3Q	2Q	1Q	VCC																
74823 AS	$\overline{OC}$	1D	2D	3D	4D	5D	6D	7D	8D	9D	$\overline{CLR}$	GND	CLK	$\overline{CKEN}$	9Q	8Q	7Q	6Q	5Q	4Q
	3Q	2Q	1Q	VCC																
74824 AS	$\overline{OC}$	1$\overline{D}$	2$\overline{D}$	3$\overline{D}$	4$\overline{D}$	5$\overline{D}$	6$\overline{D}$	7$\overline{D}$	8$\overline{D}$	9$\overline{D}$	$\overline{CLR}$	GND	CLK	$\overline{CKEN}$	9Q	8Q	7Q	6Q	5Q	4Q
	3Q	2Q	1Q	VCC																
74825 AS	$\overline{OC}$1	$\overline{OC}$2	1D	2D	3D	4D	5D	6D	7D	8D	$\overline{CLR}$	GND	CLK	$\overline{CKEN}$	8Q	7Q	6Q	5Q	4Q	3Q
	2Q	1Q	$\overline{OC}$3	VCC																

PINS ⇨	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
74826 AS	$\overline{1C1}$	$\overline{1C2}$	1D	$\overline{2D}$	3D	$\overline{4D}$	5D	$\overline{6D}$	7D	$\overline{8D}$	$\overline{PRE}$	GND	CLK	$\overline{CKEN}$	8Q	7Q	6Q	5Q	4Q	3Q
	2Q	1Q	$\overline{3C3}$	VCC																
74832 AS, ALS	1A	1B	1Y	2A	2B	2Y	3A	3B	3Y	GND	4Y	4A	4B	5Y	5A	5B	6Y	6A	6B	VCC
74839 AS	$\overline{CE}$/FE	I6	I5	I4	I3	I2	I1	I0	F5	F4	F3	GND	$\overline{CE2}$	F2	F1	F0	I13	I12	I11	I10
	I9	I8	I7	VCC																
74840 AS	$\overline{CE}$/FE	I6	I5	I4	I3	I2	I1	I0	F5	F4	F3	GND	$\overline{CE2}$	F2	F1	F0	I13	I12	I11	I10
	I9	I8	I7	VCC																
74841 ALS	$\overline{OC}$	1D	2D	3D	4D	5D	6D	7D	8D	9D	10D	GND	C	10Q	9Q	8Q	7Q	6Q	5Q	4Q
	3Q	2Q	1Q	VCC																
74842 AS, ALS	$\overline{OC}$	1D	2D	3D	4D	5D	6D	7D	8D	9D	10D	GND	C	10Q	9Q	8Q	7Q	6Q	5Q	4Q
	3Q	2Q	1Q	VCC																
74843 AS, ALS	$\overline{OC}$	1D	2D	3D	4D	5D	6D	7D	8D	9D	$\overline{CLR}$	GND	C	$\overline{PRE}$	9Q	8Q	7Q	6Q	5Q	4Q
	3Q	2Q	1Q	VCC																
74844 AS, ALS	$\overline{OC}$	1D	2D	3D	4D	5D	6D	7D	8D	9D	$\overline{CLR}$	GND	C	$\overline{PRE}$	9Q	8Q	7Q	6Q	5Q	4Q
	3Q	2Q	1Q	VCC																
74845 AS, ALS	$\overline{OC1}$	$\overline{OC2}$	1D	2D	3D	4D	5D	6D	7D	8D	$\overline{CLR}$	GND	C	$\overline{PRE}$	8Q	7Q	6Q	5Q	4Q	3Q
	2Q	1Q	$\overline{OC3}$	VCC																
74846 AS, ALS	$\overline{OC1}$	$\overline{OC2}$	1D	2D	3D	4D	5D	6D	7D	8D	$\overline{CLR}$	GND	C	$\overline{PRE}$	8Q	7Q	6Q	5Q	4Q	3Q
	2Q	1Q	$\overline{OC3}$	VCC																
74848 LS	I4	I5	I6	I7	E1	A2	A1	GND	A0	I0	I1	I2	I3	GS	E0	VCC				
74850 AS	D7	D6	D5	D4	D3	D2	D1	D0	$\overline{GY}$	$\overline{G}$	GW	CLK	W	GND	S3	S2	S1	S0	Y	D15
	D14	D13	D12	D11	D10	D9	D8	VCC												
74851 AS	D7	D6	D5	D4	D3	D2	D1	D0	$\overline{GY}$	$\overline{G}$	GW	$\overline{SC}$	W	GND	S3	S2	S1	S0	Y	D15
	D14	D13	D12	D11	D10	D9	D8	VCC												
74852 AS	S0	S1	S2	A1	A2	A3	A4	A5	A6	A7	A8	GND	Q8	B8	B7	B6	B5	B4	B3	B2
	B1	SERN	CLK	VCC																
74856 AS	$\overline{OEB}$	$\overline{OEA}$	MOD	A1	A2	A3	A4	A5	A6	A7	A8	GND	Q8	B8	B7	B6	B5	B4	B3	B2
	B1	SERN	CLK	VCC																
74857 AS, ALS	S0	1A	1B	1Y	2A	2B	2Y	3A	3B	3Y	OPER =0	GND	COMP	4Y	4B	4A	5Y	5B	5A	6Y
	6B	6A	S1	VCC																
74866 AS	QLE	L/$\overline{A}$	P-Qin	P-Qin	Q7	Q6	Q5	Q4	Q3	Q2	Q1	Q0	P=Qot	GND	OLE	P-Qot	P-Qot	P0	P1	P2
	P3	P4	P5	P6	P7	PLE	$\overline{CLRQ}$	VCC												
74867 AS	S0	S1	A	B	C	D	E	F	G	H	$\overline{ENT}$	GND	$\overline{RCO}$	CLK	QH	QG	QF	QE	QD	QC
	QB	QA	$\overline{ENP}$	VCC																
74869 AS	S0	S1	A	B	C	D	E	F	G	H	$\overline{ENT}$	GND	$\overline{RCO}$	CLK	QH	QG	QF	QE	QD	QC
	QB	QA	$\overline{ENP}$	VCC																
74870 AS	S0	1A0	1A1	1A2	1A3	1$\overline{W}$	S2	DQA1	DQA2	DQA3	DQA4	GND	DQB1	DQB2	DQB3	DQB4	S3	2$\overline{W}$	2A0	2A1
	2A2	2A3	S1	VCC																
74871 AS	DA1	DA2	S0	1A0	1A1	1A2	1A3	1$\overline{W}$	S2	QA1	QA2	QA3	QA4	GND	DQB1	DQB2	DQB3	DQB4	S3	2$\overline{W}$
	2A0	2A1	2A2	2A3	S1	DA3	DA4	VCC												
74873 AS, ALS	1$\overline{CLR}$	1$\overline{OC}$	1D1	1D2	1D3	1D4	2D1	2D2	2D3	2D4	2$\overline{OC}$	GND	2$\overline{CLR}$	2C	2Q4	2Q3	2Q2	2Q1	1Q4	1Q3
	1Q2	1Q1	1C	VCC																
74874 AS, ALS	1$\overline{CLR}$	1$\overline{OC}$	1D1	1D2	1D3	1D4	2D1	2D2	2D3	2D4	2$\overline{OC}$	GND	2$\overline{CLR}$	2CK	2Q4	2Q3	2Q2	2Q1	1Q4	1Q3
	1Q2	1Q1	1CLK	VCC																
74876 AS, ALS	1$\overline{PRE}$	1$\overline{OC}$	1D1	1D2	1D3	1D4	2D1	2D2	2D3	2D4	2$\overline{OC}$	GND	2$\overline{PRE}$	2CLK	2Q4	2Q3	2Q2	2Q1	1Q4	1Q3
	1Q2	1Q1	1CLK	VCC																
74877 AS	S0	S1	S2	A1	A2	A3	A4	A5	A6	A7	A8	GND	Q8	B8	B7	B6	B5	B4	B3	B2
	B1	SERI	CLK	VCC																
74878 AS, ALS	1$\overline{CLR}$	1$\overline{OC}$	1D1	1D2	1D3	1D4	2D1	2D2	2D3	2D4	2$\overline{OC}$	GND	2$\overline{CLR}$	2CK	2Q4	2Q3	2Q2	2Q1	1Q4	1Q3
	1Q2	1Q1	1CLK	VCC																
74879 AS, ALS	1$\overline{CLR}$	1$\overline{OC}$	1D1	1D2	1D3	1D4	2D1	2D2	2D3	2D4	2$\overline{OC}$	GND	2$\overline{CLR}$	2CLK	2Q4	2Q3	2Q2	2Q1	1Q4	1Q3
	1Q2	1Q1	1CLK	VCC																
74880 AS, ALS	1$\overline{PRE}$	1$\overline{OC}$	1D1	1D2	1D3	1D4	2D1	2D2	2D3	2D4	2$\overline{OC}$	GND	2$\overline{PRE}$	2C	2Q4	2Q3	2Q2	2Q1	1Q4	1Q3
	1Q2	1Q1	1C	VCC																
74881 AS	B0	A0	S3	S2	S1	S0	Cn	M	F0	F1	F2	GND	F3	A=B	P	Cn+4	G	B3	A3	B2
	A2	B1	A1	VCC																
74882 AS	CN	G0	P0	G1	P1	CN+8	G2	P2	G3	P3	Cn+16	GND	G4	P4	G5	P5	CN+24	G6	P6	G7
	P7	CN+32	NC	VCC																
74885 AS	L/$\overline{A}$	P-Qin	P-Qin	Q7	Q6	Q5	Q4	Q3	Q2	Q1	Q0	GND	P-Qot	P-Qot	P0	P1	P2	P3	P4	P5
	P6	P7	PLE	VCC																
74888 AS	$\overline{WE}$	B3	B2	B1	B0	$\overline{EB}$	$\overline{OEB}$	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0	Y7	Y6	Y5	Y4	Y3
	Y2	Y1	Y0	$\overline{OEY}$	PPP	SSF	Zero	P/OVR	G/$\overline{N}$	CN+8	$\overline{S107}$	$\overline{Q107}$	$\overline{Q100}$	$\overline{S100}$	Cn	10	11	12	13	14
	15	16	17	VCC2	VCC1	$\overline{EA}$	GND	DA0	DA1	DA2	DA3	DA4	DA5	DA6	DA7	CK	C0	C1	C2	C3
	A0	A1	A2	A3																

PINS ⇨	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
74889 AS	$\overline{WE}$	B3	B2	B1	B0	$\overline{EB}$	$\overline{OEB}$	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0	Y7	Y6	Y5	Y4	Y3
	Y2	Y1	Y0	$\overline{OEY}$	PPP	SSF	Zero	P/OVR	G/$\overline{N}$	CN+8	$\overline{S107}$	$\overline{Q107}$	$\overline{Q100}$	$\overline{S100}$	Cn	10	11	12	13	14
	15	16	17	VCC2	VCC1	$\overline{EA}$	GND	DA0	DA1	DA2	DA3	DA4	DA5	DA6	DA7	CK	C0	C1	C2	C3
	A0	A1	A2	A3																
74890 AS	$\overline{RADE}$	DRA6	DRA5	DRA4	DRA3	DRA2	DRA1	DRA0	OSEL	MUX0	MUX1	MUX2	RC0	RC1	RC2	S0	S1	S2	$\overline{CC}$	VCC1
	VCC2	CK	Zero	S/ReR	DRB0	DRB1	DRB2	DRB3	DRB4	DRB5	DRB6	$\overline{RBOE}$	DRB7	DRB8	DRB9	DRB10	DRB11	DRB12	DRB13	$\overline{INT}$
	Y13	Y12	Y11	Y10	Y9	Y8	GND	Y7	$\overline{YOE}$	Y6	Y5	Y4	Y3	Y2	Y1	Y0	INC	DRA13	DRA12	DRA11
	DRA10	DRA9	DRA8	DRA7																
74891 AS	$\overline{RADE}$	DRA6	DRA5	DRA4	DRA3	DRA2	DRA1	DRA0	OSEL	MUX0	MUX1	MUX2	RC0	RC1	RC2	S0	S1	S2	$\overline{CC}$	VCC1
	VCC2	CK	Zero	S/ReR	DRB0	DRB1	DRB2	DRB3	DRB4	DRB5	DRB6	$\overline{RBOE}$	DRB7	DRB8	DRB9	DRB10	DRB11	DRB12	DRB13	$\overline{INT}$
	Y13	Y12	Y11	Y10	Y9	Y8	GND	Y7	$\overline{YOE}$	Y6	Y5	Y4	Y3	Y2	Y1	Y0	INC	DRA13	DRA12	DRA11
	DRA10	DRA9	DRA8	DRA7																
74894 AS	S0	S1	S2	S3	A	B	C	D	RI/LO	CQ/AI	DQ/BI	GND	QD	QC	QB	QA	AQ/CI	BQ/DI	LI/RO	$\overline{OC}$
	$\overline{CLR}$	OV/ZE	CLK	VCC																
74897 AS	ZN3	ZN2	ZN1	ZN0	D15	D14	D13	D12	D11	D10	D9	D8	GND	D7	D6	D5	D4	D3	D2	D1
	D0	1P	0P	SYS16	ZL	S	VCC2	I0	I1	I2	CLK	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	GND
	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	$\overline{OEY}$	$\overline{NORM}$	ZN4	VCC1								
74905 C	$\overline{E}$	DO	$\overline{CCB}$	Q0	Q1	Q2	Q3	Q4	Q5	NC	D	GND	CP	$\overline{S}$	NC	Q6	Q7	Q8	Q9	Q10
	Q11	NC	$\overline{Q11}$	VCC																
74909 C	Q2	Q1	V+	I1−	I1+	I2−	I2+	I3−	I3+	I4−	I4+	GND	Q4	Q3						
74910 C	DQ2	DI2	DI1	DQ1	AB	AA	AF	AE	GND	AD	AC	$\overline{MEME}$	$\overline{W/E}$	DQ4	DI4	DI3	DQ3	VCC		
74911 C	$\overline{WE}$	a	b	c	d	e	f	g	DP	$\overline{DIO}$	GND	D1	D2	D3	D4	$\overline{SOE}$	Sa	Sb	Sc	Sd
	Se	VCC	Sf	Sg	Sdp	K1	K2	$\overline{CE}$												
74912 C	$\overline{CE}$	$\overline{WE}$	A(2^0)	B(2^1)	C(2^2)	D(2^3)	DP	$\overline{OSE}$	D6(MD)	D5	D4	D3	D2	D1(LD)	GND	$\overline{SOE}$	Sa	Sb	Sc	VCC
	Sd	Se	Sf	Sg	Sdp	K1	K2	K3												
74915 C	SEGd	SEGe	SEGf	SEGg	ERRQ	$\overline{OE}$	$A2^0$	$B2^1$	GND	$C2^2$	$D2^3$	LE	−Q	ICON	SEGa	SEGb	SEGc	VCC		
74917 C	$\overline{CE}$	$\overline{WE}$	A(2^0)	B(2^1)	C(2^2)	D(2^3)	DP	$\overline{OSE}$	D6(MD)	D5	D4	D3	D2	D1(LD)	GND	$\overline{SOE}$	Sa	Sb	Sc	VCC
	Sd	Se	Sf	Sg	Sdp	K1	K2	K3												
74922 C	RY1	RY2	RY3	RY4	OSC	KBM	CX4	CX3	GND	CX2	CX1	DAV	$\overline{OEN}$	DQD	DQC	DQB	DQA	VCC		
74923 C	RY1	RY2	RY3	RY4	RY5	OSC	KBM	CX4	CX3	GND	CX2	CX1	DAV	$\overline{OEN}$	DQE	DQD	DQC	DQB	DQA	VCC
74925 C	d	e	f	g	LE	AQ	BQ	GND	CQ	DQ	CLK	RE	a	b	c	VCC				
74926 C	d	e	f	g	LE	DisS	AQ	BQ	GND	CQ	DQ	CLK	RE	CO	a	b	c	VCC		
74927 C	d	e	f	g	LE	DisS	AQ	BQ	GND	CQ	DQ	CLK	RE	CO	a	b	c	VCC		
74928 C	d	e	f	g	LE	DisS	AQ	BQ	GND	CQ	DQ	CLK	RE	CO	a	b	c	VCC		
74932 C	PhP	PhIQ	COMI	GND	PC11Q	S1GI	NC	VCC												
74940 C	1$\overline{G}$	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	2$\overline{G}$	VCC
74941 C, S	1$\overline{G}$	1A1	2Y4	1A2	2Y3	1A3	2Y2	1A4	2Y1	GND	2A1	1Y4	2A2	1Y3	2A3	1Y2	2A4	1Y1	2$\overline{G}$	VCC
74942 HC	DSI	ALB	$\overline{CD}$	CDT	RXD	VCC	CDA	XTLD	XTAS	FTLC	TXD	VBB	O/$\overline{A}$	SQT	RXA2	RXA1	TXA	EXI	GND	TLA
74943 HC	DSI	ALB	$\overline{CD}$	CDT	RXD	VCC	CDA	XTLD	XTAS	FTLC	TXD	GND	O/$\overline{A}$	SQT	RXA2	RXA1	TXA	EXI	GNDA	TLA
74945 C	VCC	E1	G1	F1	BP	A2	B2	C2	D2	E2	G2	F2	A3	B3	C3	D3	E3	G3	F3	A4
	B4	C4	D4	E4	G4	F4	U/$\overline{D}$	CY	SEL	BLK	EN	CLK	$\overline{RE}$	STO	GND	OSC	A1	B1	C1	D1
74946 C	VCC	E1	G1	F1	BP	A2	B2	C2	D2	E2	G2	F2	A3	B3	C3	D3	E3	G3	F3	A4
	B4	C4	D4	E4	G4	F4	½DG	CY	LZI	LZQ	EN	CLK	$\overline{RE}$	STO	GND	OSC	A1	B1	C1	D1
74947 C	VCC	E1	G1	F1	BP	A2	B2	C2	D2	E2	G2	F2	A3	B3	C3	D3	E3	G3	F3	A4
	B4	C4	D4	E4	G4	F4	U/$\overline{D}$	CY	LZI	LZQ	EN	CLK	$\overline{RE}$	STO	GND	OSC	A1	B1	C1	D1
74952 LS	0D	SI	ID	TUD	TDD	SD	SO	CK	GND	IO8	IO7	IO6	IO5	IO4	IO3	IO2	IO1	VCC		
74956 C	SGL	SGD2	SGM	SGE	SGJ	SGB	SGK	SGDP	OSD	$\overline{BL}$	D6	D5	D4	D3	D2	D1	D0	$\overline{CLR}$	DG0	VSS
	DG1	DG2	DG3	$\overline{WE}$	$\overline{CU}$	A1	A0	$\overline{CE1}$	$\overline{CE2}$	CUE	SGA1	SGA2	SGI	SGF	SGH	SGD1	SGG1	SGG2	SGC	VDD
74962 LS	0D	SI	ID	TUD	TDD	SD	SO	CK	GND	IO8	IO7	IO6	IO5	IO4	IO3	IO2	IO1	VCC		
74969 C	ADA	$\overline{MEME}$	$\overline{W/E}$	DI1	$\overline{DQ1}$	DI2	$\overline{DQ2}$	GND	$\overline{DQ3}$	DI3	$\overline{DQ4}$	DI4	ADD	ADC	ADB	VCC				
741000 AS, ALS	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
741002 ALS	1Y	1A	1B	2Y	2A	2B	GND	3A	3B	3Y	4A	4B	4Y	VCC						
741003 ALS	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
741004 AS, ALS	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						
741005 ALS	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						
741008 AS, ALS	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
741010 ALS	1A	1B	2A	2B	2C	2Y	GND	3Y	3A	3B	3C	1Y	1C	VCC						
741011 ALS	1A	1B	2A	2B	2C	2Y	GND	3Y	3A	3B	3C	1Y	1C	VCC						
741020 ALS	1A	1B	NC	1C	1D	1Y	GND	2Y	2A	2B	NC	2C	2D	VCC						
741032 AS, ALS	1A	1B	1Y	2A	2B	2Y	GND	3Y	3A	3B	4Y	4A	4B	VCC						
741034 AS, ALS	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						
741035 ALS	1A	1Y	2A	2Y	3A	3Y	GND	4Y	4A	5Y	5A	6Y	6A	VCC						

INTEGRATED CIRCUIT PIN-OUTS

PART NUMBER

JE-TTL Plastic Chart (6 PAGES 3 SHEETS) 8½" x 11" . . . **$14.95/Set**

1355 SHOREWAY ROAD
BELMONT, CA 94002

MEMORY & MICROPROCESSORS

• STATIC RAMS • DYNAMIC RAMS • EPROMS • Z80, A, B SERIES

PINS ⇨	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STATIC RAMS																				
2101 (N, L)	A3	A2	A1	A0	A5	A6	A7	GND	DI1	DO1	DI2	DO2	DI3	DO3	DI4	DO4	CE2	OD	$\overline{CE1}$	R/W
	A4	VCC																		
2102 (N, L)	A6	A5	R/W	A1	A2	A3	A4	A0	GND	VCC	DI	DO	$\overline{CE}$	A9	A8	A7				
2111 (N, L)	A3	A2	A1	A0	A5	A6	A7	GND	OD	$\overline{CE2}$	I/O1	I/O2	I/O3	I/O4	$\overline{CE1}$	R/W	A4	VCC		
2112 (N, L)	A3	A2	A1	A0	A5	A6	A7	GND	I/O1	I/O2	I/O3	I/O4	$\overline{CE}$	R/W	A4	VCC				
2114 (C, N, L)	A6	A5	A4	A3	A0	A1	A2	$\overline{CS}$	GND	$\overline{WE}$	I/O4	I/O3	I/O2	I/O1	A9	A8	A7	VCC		
2147 (N)	A0	A1	A2	A3	A4	A5	DQ	$\overline{WE}$	GND	$\overline{CS}$	Din	A11	A10	A9	A8	A7	A6	VCC		
2148 (N)	A6	A5	A4	A3	A0	A1	A2	$\overline{CS}$	GND	$\overline{WE}$	I/O4	I/O3	I/O2	I/O1	A9	A8	A7	VCC		
5101 (E, L)	A3	A2	A1	A0	A5	A6	A7	GND	DI1	DO1	DI2	DO2	DI3	DO3	DI4	DO4	CE2	OD	$\overline{CE1}$	R/W
	A4	VCC																		
6116 (P, LP)	A7	A6	A5	A4	A3	A2	A1	A0	I/O1	I/O2	I/O3	GND	I/O4	I/O5	I/O6	I/O7	I/O8	$\overline{CS}$	A10	$\overline{OE}$
	$\overline{WE}$	A9	A8	VCC																
6264 (P, LP)	NC	A12	A7	A6	A5	A4	A3	A2	A1	A0	I/O1	I/O2	I/O3	GND	I/O4	I/O5	I/O6	I/O7	I/O8	$\overline{CS1}$
	A10	$\overline{OE}$	A11	A9	A8	CS2	$\overline{WE}$	VCC												
DYNAMIC RAMS																				
4116	VBB	Din	W/R	RAS	A0	A2	A1	VDD	VCC	A5	A4	A3	A6	DQ	CAS	VSS				
4164	NC	Din	WE	RAS	A0	A2	A1	VCC	A7	A5	A4	A3	A6	DQ	CAS	VSS				
4128 (48128)	Din (D)	WRITE (W)	READ / REFRESH (R/F)	RAS / ADS	A0	A2	A1	VCC	A7	A5	A4	A3	A6	DOUT (Q)	OE / DES	VSS				
5262	VBB	NC	R/W	DQ	VDD	A5	A6	A7	A8	A9	A10	A0	A1	A2	A3	A4	CLK2	CLK3	CLK1	VSS
	Din	$\overline{CS}$																		
41256	A8	Din	WR	RAS	A0	A2	A1	VCC	A7	A5	A4	A3	A6	Dout	CAS	VSS				
EPROMS																				
1702	A2	A1	A0	DO1	DO2	DO3	DO4	DO5	DO6	DO7	DO8	VCC	PROG	$\overline{CS}$	VBB	VGG	A7	A6	A5	A4
	A3	VCC	VCC	VDD																
TMS2516	A7	A6	A5	A4	A3	A2	A1	A0	Q1	Q2	Q3	VSS	Q4	Q5	Q6	Q7	Q8	PD/PGM	A10	$\overline{CS}$
	VPP	A9	A8	VCC																
TMS2532	A7	A6	A5	A4	A3	A2	A1	A0	Q1	Q2	Q3	VSS	Q4	Q5	Q6	Q7	Q8	A11	A10	PD/PGM
	VPP	A9	A8	VCC																
TMS2564	VPP	$\overline{CS1}$	A7	A6	A5	A4	A3	A2	A1	A0	Q1	Q2	Q3	VSS	Q4	Q5	Q6	Q7	Q8	A11
	A10	PD/PGM	A12	A9	A8	VCC+	$\overline{CS2}$	VCC												
2708	A7	A6	A5	A4	A3	A2	A1	A0	Q1	Q2	Q3	VSS	Q4	Q5	Q6	Q7	Q8	PGM	VDD	$\overline{CS}$/W
	VBB	A9	A8	VCC																
TMS2716	A7	A6	A5	A4	A3	A2	A1	A0	Q1	Q2	Q3	VSS	Q4	Q5	Q6	Q7	Q8	$\overline{CS}$(PG)	VDD	A10
	VBB	A9	A8	VCC(PE)																
2716,C	A7	A6	A5	A4	A3	A2	A1	A0	O0	O1	O2	GND	O3	O4	O5	O6	O7	$\overline{CE}$	A10	$\overline{OE}$
	VPP	A9	A8	VCC																
2732,A,C	A7	A6	A5	A4	A3	A2	A1	A0	O0	O1	O2	GND	O3	O4	O5	O6	O7	$\overline{CE}$	A10	$\overline{OE}$/VPP
	A11	A9	A8	VCC																
2764,C	VPP	A12	A7	A6	A5	A4	A3	A2	A1	A0	O0	O1	O2	GND	O3	O4	O5	O6	O7	$\overline{CE}$
	A10	$\overline{OE}$	A11	A9	A8	NC	PGM	VCC												
2816	A7	A6	A5	A4	A3	A2	A1	A0	I0/O0	I1/O1	I2/O2	GND	I3/O3	I4/O4	I5/O5	I6/O6	I7/O7	$\overline{CE}$	A10	$\overline{OE}$
	VPP	A9	A8	VCC																
2817	RY/$\overline{BY}$	NC	A7	A6	A5	A4	A3	A2	A1	A0	I0/O0	I1/O1	I2/O2	GND	I3/O3	I4/O4	I5/O5	I6/O6	I7/O7	$\overline{CE}$
	A10	$\overline{OE}$	NC	A9	A8	NC	$\overline{WE}$	VCC												
27128	VPP	A12	A7	A6	A5	A4	A3	A2	A1	A0	O0	O1	O2	GND	O3	O4	O5	O6	O7	$\overline{CE}$
	A10	$\overline{OE}$	A11	A9	A8	A13	PGM	VCC												
27256	VPP	A12	A7	A6	A5	A4	A3	A2	A1	A0	O0	O1	O2	GND	O3	O4	O5	O6	O7	$\overline{CE}$
	A10	$\overline{OE}$	A11	A9	A8	A13	A14	VCC												
27512	A15	A12	A7	A6	A5	A4	A3	A2	A1	A0	O0	O1	O2	GND	O3	O4	O5	O6	O7	$\overline{CE}$
	A10	$\overline{OE}$/VPP	A11	A9	A8	A13	A14	VCC												
MCM68764	A7	A6	A5	A4	A3	A2	A1	A0	DQ0	DQ1	DQ2	VSS	DQ3	DQ4	DQ5	DQ6	DQ7	A11	A10	E/VPP
	A12	A9	A8	VCC																
Z80, A, B SERIES																				
Z80,A,B	A11	A12	A13	A14	A15	CLK	D4	D3	D5	D6	+5V	D2	D7	D0	D1	$\overline{INT}$	$\overline{NMI}$	$\overline{HALT}$	$\overline{MREQ}$	$\overline{IORQ}$
	$\overline{RD}$	$\overline{WR}$	$\overline{BUSA}$	$\overline{WAIT}$	$\overline{BUSR}$	$\overline{RE}$	$\overline{M1}$	$\overline{RFSH}$	GND	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10
Z80-CTC	D4	D5	D6	D7	GND	$\overline{RD}$	ZC/TO0	ZC/TO1	ZC/TO2	$\overline{IORQ}$	IEO	$\overline{INT}$	IEI	$\overline{M1}$	CLK	$\overline{CE}$	$\overline{RE}$	CS0	CS1	CK/T3
	CK/T2	CK/T1	CK/T0	+5V	D0	D1	D2	D3												
Z80-DART	D1	D3	D5	D7	$\overline{INT}$	IEI	IEO	$\overline{M1}$	VDD	W/RYA	RIA	RxDA	RxCA	TxCA	TxDA	DTRA	RTSA	CTSA	DCDA	CLK
	$\overline{RE}$	DCDB	CTSB	RTSB	DTR/B	TxDB	RxTxC	RxDB	RIB	W/RYB	GND	$\overline{RD}$	C/$\overline{D}$	B/$\overline{A}$	$\overline{CE}$	IORQ	D6	D4	D2	D0
Z80-DMA	A5	A4	A3	A2	A1	A0	CLK	$\overline{WR}$	$\overline{RD}$	$\overline{IORQ}$	+5V	$\overline{MREQ}$	$\overline{BAO}$	$\overline{BAI}$	$\overline{BUSR}$	CE/$\overline{WT}$	A15	A14	A13	A12
	A11	A10	A9	A8	RDY	$\overline{MT}$	D7	D6	D5	GND	D4	D3	D2	D1	D0	IEO	$\overline{INT}$/P	IEI	A7	A6

MICROPROCESSOR COMPONENTS

• Z80,A,B SERIES • 6500 SERIES • 6800 SERIES

PINS ⇨	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Z80-PIO	D2	D7	D6	$\overline{CE}$	C/$\overline{D}$	B/$\overline{A}$	A7	A6	A5	A4	GND	A3	A2	A1	A0	$\overline{ASTB}$	$\overline{BSTB}$	ARDY	D0	D1
	BRDY	IEO	$\overline{INT}$	IEI	CLK	+5V	B0	B1	B2	B3	B4	B5	B6	B7	$\overline{RD}$	$\overline{IORQ}$	$\overline{M1}$	D5	D4	D3
Z80-SIO/0	D1	D3	D5	D7	$\overline{INT}$	IEI	IEO	$\overline{M1}$	+5V	W/RYA	SYNA	RxDA	RxCA	TxCA	TxDA	DTRA	RTSA	CTSA	DCDA	CLK
	$\overline{RE}$	DCDB	CTSB	RTSB	DTRB	TxDB	TxCB	RxDB	SYCB	W/RYB	GND	$\overline{RD}$	C/$\overline{D}$	B/$\overline{A}$	$\overline{CE}$	$\overline{IORQ}$	D6	D4	D2	D0
Z80-SIO/1	D1	D3	D5	D7	$\overline{INT}$	IEI	IEO	$\overline{M1}$	+5V	W/RYA	SYNA	RxDA	RxCA	TxCA	TxDA	DTRA	RTSA	CTSA	DCDA	CLK
	$\overline{RE}$	DCDB	CTSB	RTSB	TxDB	TxCB	RxCB	RxDB	SYNB	W/RYB	GND	$\overline{RD}$	C/$\overline{D}$	B/$\overline{A}$	$\overline{CE}$	$\overline{IORQ}$	D6	D4	D2	D0
Z80-SIO/2	D1	D3	D5	D7	$\overline{INT}$	IEI	IEO	$\overline{M1}$	+5V	W/RYA	SYNA	RxDA	RxCA	TxCA	TxDA	DTRA	RTSA	CTSA	DCDA	CLK
	$\overline{RE}$	DCDB	CTSB	RTSB	DTRB	TxDB	TxCB	RxCB	RxDB	W/RYB	GND	$\overline{RD}$	C/$\overline{D}$	B/$\overline{A}$	$\overline{CE}$	$\overline{IORQ}$	D6	D4	D2	D0
6500 SERIES																				
6502,A,B	VSS	RDY	Ø1(Q)	$\overline{IRQ}$	NC	$\overline{NMI}$	SYNC	VCC	AB0	AB1	AB2	AB3	AB4	AB5	AB6	AB7	AB8	AB9	AB10	AB11
	VSS	AB12	AB13	AB14	AB15	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0	R/W	NC	NC	Ø0(I)	SO	Ø2(Q)	$\overline{RES}$
6520	VSS	PA0	PA1	PA2	PA3	PA4	PA5	PA6	PA7	PB0	PB1	PB2	PB3	PB4	PB5	PB6	PB7	CB1	CB2	VCC
	R/$\overline{W}$	CS0	$\overline{CS2}$	CS1	Ø2	D7	D6	D5	D4	D3	D2	D1	D0	$\overline{RES}$	RS1	RS0	$\overline{IRQB}$	$\overline{IRQA}$	CA2	CA1
6522	VSS	PA0	PA1	PA2	PA3	PA4	PA5	PA6	PA7	PB0	PB1	PB2	PB3	PB4	PB5	PB6	PB7	CB1	CB2	VCC
	$\overline{IRQ}$	R/$\overline{W}$	$\overline{CS2}$	CS1	Ø2	D7	D6	D5	D4	D3	D2	D1	D0	$\overline{RES}$	RS3	RS2	RS1	RS0	CA2	CA1
6545	GND	$\overline{RES}$	LPEN	CC0/0	CC1/1	CC2/2	CC3/3	CC4/4	CC5/5	CC6/6	CC7/7	CR0/8	CR1/9	CR2/10	CR3/11	CR4/12	CR5/13	D/SE	CUR	VCC
	CCK	R/$\overline{W}$	Ø2	RS	$\overline{CS}$	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0	RA4	RA3	RA2	RA1	RA0	HSYN	VSYN
6551	GND	CS0	$\overline{CS1}$	$\overline{RES}$	RxC	XTL1	XTL2	$\overline{RTS}$	$\overline{CTS}$	TxD	$\overline{DTR}$	RxD	RS0	RS1	VCC	$\overline{DCD}$	$\overline{DSR}$	DB0	DB1	DB2
	DB3	DB4	DB5	DB6	DB7	$\overline{IRQ}$	Ø2	R/$\overline{W}$												
6800, A, B SERIES																				
6800,A,B	VSS	$\overline{HALT}$	Ø1	$\overline{IRQ}$	VMA	$\overline{NMI}$	BA	VCC	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11
	VSS	A12	A13	A14	A15	D7	D6	D5	D4	D3	D2	D1	D0	R/$\overline{W}$	NC	DBE	Ø2	NC	TSC	$\overline{RE}$
6802	VSS	$\overline{HALT}$	MR	$\overline{IRQ}$	VMA	$\overline{NMI}$	BA	VCC	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11
	VSS	A12	A13	A14	A15	D7	D6	D5	D4	D3	D2	D1	D0	R/$\overline{W}$	VCC	RE	E	XTL	EXTL	$\overline{RE}$
6809,A,B	VSS	$\overline{NMI}$	$\overline{IRQ}$	$\overline{FIRQ}$	BS	BA	VCC	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
	A13	A14	A15	D7	D6	D5	D4	D3	D2	D1	D0	R/$\overline{W}$	DMA/$\overline{B}$	E	Q	MRDY	$\overline{RE}$	EXTL	XTL	$\overline{HALT}$
6809E,A,B	VSS	$\overline{NMI}$	$\overline{IRQ}$	$\overline{FIRQ}$	BS	BA	VCC	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
	A13	A14	A15	D7	D6	D5	D4	D3	D2	D1	D0	R/$\overline{W}$	BUSY	E	Q	AVMA	$\overline{RE}$	LIC	TSC	$\overline{HALT}$
6810,A,B	GND	D0	D1	D2	D3	D4	D5	D6	D7	CS0	$\overline{CS1}$	$\overline{CS2}$	CS3	$\overline{CS4}$	$\overline{CS5}$	R/$\overline{W}$	A6	A5	A4	A3
	A2	A1	A0	VCC																
6821,A,B	VSS	PA0	PA1	PA2	PA3	PA4	PA5	PA6	PA7	PB0	PB1	PB2	PB3	PB4	PB5	PB6	PB7	CB1	CB2	VCC
	R/$\overline{W}$	CS0	$\overline{CS2}$	CS1	E	D7	D6	D5	D4	D3	D2	D1	D0	$\overline{RE}$	RS1	RS0	$\overline{IRQB}$	$\overline{IRQA}$	CA2	CA1
6830L8	GND	D0	D1	D2	D3	D4	D5	D6	D7	CS1	CS0	VCC	CS2	CS3/R	A9	A8	A7	A6	A5	A4
	A3	A2	A1	A0																
6845,A,B	GND	$\overline{RE}$	LPS	MA0	MA1	MA2	MA3	MA4	MA5	MA6	MA7	MA8	MA9	MA10	MA11	MA12	MA13	DE	CUR	VCC
	CLK	R/$\overline{W}$	E	RS	$\overline{CS}$	D7	D6	D5	D4	D3	D2	D1	D0	RA4	RA3	RA2	RA1	RA0	HS	VS
6850,A,B	VSS	RxD	RxCK	TxCK	$\overline{RTS}$	TxD	$\overline{IRQ}$	CS0	$\overline{CS2}$	CS1	RS	VCC	R/$\overline{W}$	E	D7	D6	D5	D4	D3	D2
	D1	D0	$\overline{DCD}$	$\overline{CTS}$																
6860	VSS	TxD	RxBK	ANPH	ELS	ESS	TD	TxBK	BKR	TxC	FO	VCC	XTAL	RxR	MODE	ST	RxC	TST	RI	DTR
	SH	ESO	CTS	RxDa																
6880A (8T26A)	RE	RQ1	BUS1	DRI1	RQ2	BUS2	DRI2	GND	DRI3	BUS3	RQ3	DI4	BUS4	RQ4	DREI	VCC				
Z8000 SERIES																				
Z8001B	AD0	AD9	AD10	AD11	AD12	AD13	STP	MT	AD15	AD14	+5V	VI	NVI	SEGT	NMI	RE	MO	MREQ	DS	ST3
	ST2	ST1	ST0	SN3	SN1	SN0	BUSR	WAIT	BUSA	R/W	N/S	B/W	RES	AS	CLK	GND	SN2	AD1	AD2	AD3
	AD5	SN4	AD4	AD6	AD7	SN5	SN6	AD8												
Z8002B	AD9	AD10	AD11	AD12	AD13	STP	MT	AD15	AD14	+5V	VI	NVI	NMI	RE	MO	MREQ	DS	ST3	ST2	ST1
	ST0	BUSR	WAIT	BUSA	R/W	N/S	B/W	RES	AS	CLK	GND	AD1	AD2	AD3	AD5	AD4	AD6	AD7	AD8	ADO
Z8030A	AD1	AD3	AD5	AD7	INT	IEO	IEI	INTA	+5V	W/RA	SYNA	RTxC	RxDA	TRxC	TxDA	DTR/A	RTSA	CTSA	DCDA	PCLK
	DCDB	CTSB	RTSB	DTR/B	TxDB	TRxC	RxDB	RTxC	SYNB	W/RB	GND	CS1	CS0	R/W	AS	DS	AD6	AD4	AD2	ADO
Z8036A	AD4	AD5	AD6	AD7	DS	R/W	GND	PB0	PB1	PB2	PB3	PB4	PB5	PB6	PB7	PCLK	IEI	IEO	PC0	PC1
	PC2	PC3	+5V	INT	INTC	PA7	PA6	PA5	PA4	PA3	PA2	PA1	PA0	AS	CS1	CS0	AD0	AD1	AD2	AD3
68000 SERIES																				
68000 L4, L6, L8, L10, L12	D4	D3	D2	D1	D0	AS	UDS	LDS	R/W	DTAK	BG	BGAK	BR	VCC	CLK	GND	HALT	RE	VMA	E
	VPA	BER	IPL2	IPL1	IPL0	FC2	FC1	FC0	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
	A13	A14	A15	A16	A17	A18	A19	A20	VCC	A21	A22	A23	GND	D15	D14	D13	D12	D11	D10	D9
	D8	D7	D6	D5																
68488,A,B	VSS	DMAG	CS	ASE	R/W	E	DB0	DB1	DB2	DB3	DB4	DB5	DB6	DB7	DMAR	DAV	DAC	RFD	RE	VCC
	IFC	REN	SRQ	TRIG	EOI	ATN	T/R2	T/R1	IB7	IB6	IB5	IB4	IB3	IB2	IB1	IB0	RS0	RS1	RS2	IRQ
68652, (-2)	CE	RxC	RxSI	S1F	RxA	RxDA	RxSA	RxE	GND	DB8	DB9	DB10	DB11	DB12	DB13	DB14	DB15	R/W	A2	A1
	A0	BYTE	DBEN	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0	VCC	RE	TxA	TxBE	TxU	TxE	TxSQ	TxC	MM
68661,A,B,C	D2	D3	RxD	GND	D4	D5	D6	D7	TxC/S	A1	CE	A0	R/W	RxRY	TxRY	DCD	CTS	TxE/D	TxD	BRCK
	RE	DSR	RTS	DTR	RxC/B	VCC	D0	D1												

PART NUMBER: JE-MIC Plastic Chart (2 PAGES 1 SHEET) 8½" x 11" $5.95/Set
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INTEGRATED CIRCUIT PIN-OUTS

1355 SHOREWAY ROAD
BELMONT, CA 94002

MICROPROCESSOR COMPONENTS

• 8000 SERIES • 8100 SERIES • 8200 SERIES

PINS ⇨	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
8000 SERIES																				
8031	P1.0	P1.1	P1.2	P1.3	P1.4	P1.5	P1.6	P1.7	RST/V	$\overline{INT}$ P3.2	INT P3.3	$\overline{T0}$ P3.4	T1 P3.5	$\overline{WR}$ P3.6	$\overline{RD}$ P3.7	XTL2	XTL1	VSS		
	A8 P2.0	A9 P2.1	A10 P2.2	A11 P2.3	A12 P2.4	A13 P2.5	A14 P2.6	A15 P2.7	PSEN	ALE/P	EA/VD	A0/ P0.7	A1/ P0.6	A2/ P0.5	A3/ P0.4	A4/ P0.3	A5/ P0.2	A6/ P0.1	A7/ P0.0	VCC
8035	T0	XTL1	XTL2	$\overline{RE}$	$\overline{SS}$	$\overline{INT}$	EA	$\overline{RD}$	$\overline{PSEN}$	$\overline{WR}$	ALE	DB0	DB1	DB2	DB3	DB4	DB5	DB6	DB7	VSS
	P20	P21	P22	P23	PROG	VDD	P10	P11	P12	P13	P14	P15	P16	P17	P24	P25	P26	P27	T1	VCC
8039	SAME AS 8035																			
8040	SAME AS 8035																			
8048	SAME AS 8035																			
8049	SAME AS 8035																			
8060	NWDS	NRDS	NEIN	NENQ	NBRQ	NHLD	NRST	CONT	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0	SENA	SENB	FLG0	GND
	FLG1	FLG2	SQ	SI	AD00	AD01	AD02	AD03	AD04	AD05	AD06	AD07	AD08	AD09	AD10	AD11	XI	XQ	NADS	VCC
8070	NENQ	NENI	NBRQ	NRDS	NHLD	NWDS	XQ	XI	A15	A14	A13	A12	A11	A10	A9	A8	A7	A6	A5	GND
	A4	A3	A2	A1	A0	D7	D6	D5	D4	D3	D2	D1	D0	F1	F2	F3	NRST	SA	SB	VCC
8073	NENQ	NENI	NBRQ	NRDS	NHLD	NWDS	XQ	XI	A15	A14	A13	A12	A11	A10	A9	A8	A7	A6	A5	GND
	A4	A3	A2	A1	A0	D7	D6	D5	D4	D3	D2	D1	D0	F1	F2	F3	NRST	SA	SB	VCC
8080,A	A10	GND	D4	D5	D6	D7	D3	D2	D1	D0	−5V	$\overline{RE}$	HOLD	INT	Ø2	INTE	DBIN	$\overline{WR}$	SYNC	+5V
	HLDA	Ø1	RDY	WAIT	A0	A1	A2	+12V	A3	A4	A5	A6	A7	A8	A9	A15	A12	A13	A14	A11
8085A,-2	X1	X2	REQ	SOD	S1D	TRAP	RST7.5	RT6.5	RT5.5	INTR	$\overline{INT}$	AD0	AD1	AD2	AD3	AD4	AD5	AD6	AD7	VCC
	A8	A9	A10	A11	A12	A13	A14	A15	S0	ALE	$\overline{WR}$	$\overline{RD}$	S1	IO/$\overline{M}$	RDY	$\overline{REI}$	CLK(Q)	HLDA	HOLD	VCC
8086,-2	GND	AD14	AD13	AD12	AD11	AD10	AD9	AD8	AD7	AD6	AD5	AD4	AD3	AD2	AD1	AD0	NMI	INTR	CLK	GND
	RE	RDY	$\overline{TST}$	INTA Q01	(ALE) Q00	$\overline{HOLD}$ Q11	(LOCK) Q10	MIN/$\overline{MX}$	$\overline{BHE}$/S7	(HLDA) RQ/$\overline{GT1}$	(HOLD) RQ/$\overline{GT0}$	$\overline{RD}$	MN/$\overline{MX}$	$\overline{BHE}$/S7	A19/S6	A18/S5	A17/S4	A16/S3	AD15	VCC
8087	GND	A14 AD14	A13 AD13	A12 AD12	A11 AD11	A10 AD10	A9 AD9	A8 AD8	AD7	AD6	AD5	AD4	AD3	AD2	AD1	AD0	NC	NC	CLK	GND
	RE	RDY	BUSY	QS1	QS0	$\overline{S0}$	$\overline{S1}$	S2	NC	NC	RQ/$\overline{GO}$	INT	RQ/$\overline{GT}$	$\overline{BHE}$/S7	A19/S6	A18/S5	A17/S4	A16/S3	AD15	VCC
8088	GND	A14	A13	A12	A11	A10	A9	A8	AD7	AD6	AD5	AD4	AD3	AD2	AD1	AD0	NMI	INTR	CLK	GND
	RE	RDY	$\overline{TST}$	INTA/ IO/$\overline{M}$	WR/ ALE	HLDA/ DT/$\overline{R}$	DEN/ $\overline{DEN}$	DT/$\overline{R}$	SS0/ HIGH	MN/$\overline{MX}$	RQ/$\overline{GT0}$	$\overline{RD}$	MN/$\overline{MX}$	$\overline{SSO}$/ HIGH	A19/S6	A18/S5	A17/S4	A16/S3	A15	VCC
8100 SERIES																				
8154	PB6	PB5	PB4	PB3	PB2	PB1	PB0	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0	PA7	PA6	PA5	PA4	GND
	PA3	PA2	PA1	PA0	INTR	AD0	AD1	AD2	AD3	AD4	AD5	AD6	M/$\overline{IO}$	CS1	$\overline{CS0}$	NRST	NRDS	NWDS	PB7	VCC
8155	PC3	PC4	TMRI	RE	PCS	$\overline{TMRO}$	IO/$\overline{M}$	$\overline{CE}$	$\overline{RD}$	$\overline{WR}$	ALE	AD0	AD1	AD2	AD3	AD4	AD5	AD6	AD7	VSS
	PA0	PA1	PA2	PA3	PA4	PA5	PA6	PA7	PB0	PB1	PB2	PB3	PB4	PB5	PB6	PB7	PC0	PC1	PC2	VCC
8156	PC3	PC4	TMRI	RE	PCS	$\overline{TMRO}$	IO/$\overline{M}$	CE	$\overline{RD}$	$\overline{WR}$	ALE	AD0	AD1	AD2	AD3	AD4	AD5	AD6	AD7	VSS
	PA0	PA1	PA2	PA3	PA4	PA5	PA6	PA7	PB0	PB1	PB2	PB3	PB4	PB5	PB6	PB7	PC0	PC1	PC2	VCC
8185	AD0	AD1	AD2	AD3	AD4	AD5	AD6	AD7	VSS	A8	A9	CE2	$\overline{CE1}$	$\overline{CS}$	ALE	$\overline{WR}$	$\overline{RD}$	VCC		
8200 SERIES																				
8205	A0	A1	A2	E1	E2	E3	07	GND	06	05	04	03	Q2	01	00	VCC				
8212	$\overline{DS1}$	MD	DI1	DO1	DI2	DO2	DI3	DO3	DI4	DO4	STB	GND	DS2	$\overline{CLR}$	DO5	DI5	DO6	DI6	DO7	DI7
	DO8	DI8	$\overline{INT}$	VCC																
8214	$\overline{B0}$	$\overline{B1}$	$\overline{B2}$	$\overline{SGS}$	$\overline{INT}$	$\overline{CLK}$	INTE	$\overline{A0}$	$\overline{A1}$	$\overline{A2}$	$\overline{ELR}$	GND	ETLG	ENLG	$\overline{R0}$	$\overline{R1}$	$\overline{R2}$	$\overline{R3}$	$\overline{R4}$	$\overline{R5}$
	$\overline{R6}$	$\overline{R7}$	$\overline{ECS}$	VCC																
8216	$\overline{CS}$	DO0	DB0	DI0	DO1	DB1	DI1	GND	DI2	DB2	DO2	DI3	DB3	DO3	$\overline{DIEN}$	VCC				
8224	RE	$\overline{RESN}$	RDYI	RDY	SYNC	Ø (TTL)	$\overline{STSB}$	GND	VDD	Ø2	Ø1	OSC	TANK	XTL2	XTL1	VCC				
8226	SAME AS 8216																			
8228	$\overline{STSB}$	HLDA	$\overline{WR}$	DBI	DB4	D4	DB7	D7	DB3	D3	DB2	D2	DB0	GND	D0	DB1	D1	DB5	D5	DB6
	D6	BUSN	$\overline{INTA}$	MEMR	I/$\overline{OR}$	MEMW	I/$\overline{OW}$	VCC												
8237, -5	$\overline{IOR}$	$\overline{IOW}$	MEMR	MEMW	I	RDY	HLDA	ADSB	AEN	HRQ	$\overline{CS}$	CLK	RE	DAC2	DAC3	DRQ3	DRQ2	DRQ1	DRQ0	VSS
	DB7	DB6	DB5	DAC1	DAC0	DB4	DB3	DB2	DB1	DB0	VCC(+5V)	A0	A1	A2	A3	$\overline{EOP}$	A4	A5	A6	A7
8238	SAME AS 8228																			
8243	P50	P40	P41	P42	P43	$\overline{CS}$	PROG	P23	P22	P21	P20	GND	P70	P71	P72	P73	P63	P62	P61	P60
	P53	P52	P51	VCC																
8245	Y1	Y2	Y3	Y4	OSC	KYMK	COLX4	COLX3	GND	COLX2	COLX1	DAV	$\overline{QEN}$	DQD	DQC	DQB	DQA	VCC		
8246	Y1	Y2	Y3	Y4	Y5	OSC	KYMK	COLX4	COLX3	GND	COLX2	COLX1	DAV	$\overline{QEN}$	DQE	DQD	DQC	DQB	DQA	VCC
8247	$\overline{WE}$	a	b	c	d	e	f	g	DP	$\overline{DIO}$	GND	D1	D2	D3	D4	$\overline{SOE}$	Sa	Sb	Sc	Sd
	Se	VCC	Sf	Sg	SDP	K1	K2	$\overline{CE}$												
8248	$\overline{CE}$	$\overline{WE}$	A(2^0)	B(2^1)	C(2^2)	D(2^3)	DP	$\overline{OSE}$	D6(MD)	D5	D4	D3	D2	D1(LD)	GND	$\overline{SOE}$	Sa	Sb	Sc	VCC
	Sd	Se	Sf	Sg	Sdp	K1	K2	K3												
8250	D0	D1	D2	D3	D4	D5	D6	D7	RCLK	SI	SQ	SCO	SC1	$\overline{SC2}$	BAUQ	XTL1	XTL2	$\overline{DOST}$	DOST	VSS
	$\overline{DIST}$	DIST	DDIS	CSQ	$\overline{ADS}$	A2	A1	A0	NC	INTP	$\overline{Q2}$	$\overline{RTS}$	$\overline{DTR}$	Q1	MR	$\overline{CTS}$	$\overline{DSR}$	$\overline{RLSD}$	$\overline{RI}$	VCC
8251	D2	D3	RxD	GND	D4	D5	D6	D7	$\overline{TxC}$	$\overline{WR}$	$\overline{CS}$	C/$\overline{D}$	$\overline{RD}$	RxDY	TxDY	SYN/$\overline{DB}$	$\overline{CTS}$	TxEY	TxD	CLK
	RE	$\overline{DSR}$	$\overline{RTS}$	$\overline{DTR}$	$\overline{RxC}$	VCC	D0	D1												
8253,-5	D7	D6	D5	D4	D3	D2	D1	D0	CLK	Q0	GTE0	GND	Q1	GTE1	CLK1	GTE2	Q2	CLK2	A0	A1
	$\overline{CS}$	$\overline{RD}$	$\overline{WR}$	VCC																
8255, -5	PA3	PA2	PA1	PA0	$\overline{RD}$	$\overline{CS}$	GND	A1	A0	PC7	PC6	PC5	PC4	PC0	PC1	PC2	PC3	PB0	PB1	PB2
	PB3	PB4	PB5	PB6	PB7	VCC	D7	D6	D5	D4	D3	D2	D1	D0	RE	$\overline{WR}$	PA7	PA6	PA5	PA4

MICROPROCESSOR COMPONENTS

• 8200 SERIES • 8300 SERIES • A/D CONVERTERS D/A

PINS ⇨	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
8257, -5	I/$\overline{OR}$	I/$\overline{OW}$	MEMR	MEMW	MRK	RDY	HLDA	ADSB	AEN	HRQ	$\overline{CS}$	CLK	RE	DAC2	DAC3	DRQ3	DRQ2	DRQ1	DRQ0	GND
	D7	D6	D5	DAC1	DAC0	D4	D3	D2	D1	D0	VCC	A0	A1	A2	A3	TC	A4	A5	A6	A7
8259, -5	$\overline{CS}$	$\overline{WR}$	$\overline{RD}$	D7	D6	D5	D4	D3	D2	D1	D0	CAS0	CAS1	GND	CAS2	SP/$\overline{EN}$	INT	IR0	IR1	IR2
	IR3	IR4	IR5	IR6	IR7	$\overline{INTA}$	A0	VCC												
8272	RE	$\overline{RD}$	$\overline{WR}$	$\overline{CS}$	A0	DB0	DB1	DB2	DB3	DB4	DB5	DB6	DB7	DRQ	$\overline{DAC}$	TC	IDX	INT	CLK	GND
	WRCK	DW	RDD	VCO	WE	MFM	HDSL	DS1	DS0	WRD	PS1	PS0	FLT/T	WP/TS	RDY	HDL	FR/ST	LCT/D	$\overline{RW}$/SE	VCC
8274	CLK	$\overline{RE}$	$\overline{CDA}$	$\overline{RxCB}$	$\overline{CDB}$	$\overline{CTSB}$	$\overline{TxCB}$	TxDB	RxDB	$\overline{RTSB}$	RDYB	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0	GND
	$\overline{WR}$	$\overline{RD}$	$\overline{CS}$	A1	A0	$\overline{DTRB}$	$\overline{INTA}$	$\overline{INT}$	IP/$\overline{R}$	$\overline{IP0}$/T	$\overline{DTRA}$	RDYA	$\overline{SYN}$A	RxDA	$\overline{RxCA}$	$\overline{TxCA}$	TxDA	$\overline{RTSA}$	$\overline{CTSA}$	VCC
8275	LC3	LC2	LC1	LC0	DRQ	$\overline{DAC}$	HRTC	VRTC	$\overline{RD}$	$\overline{WR}$	LPEN	DB0	DB1	DB2	DB3	DB4	DB5	DB6	DB7	GND
	A0	$\overline{CS}$	CC0	CC1	CC2	CC3	CC4	CC5	CC6	CCLK	IRQ	HLGT	GPA0	GPA1	VSP	RVV	LTEN	LA1	LA0	VCC
8279, -5	RL2	RL3	CLK	IRQ	RL4	RL5	RL6	RL7	RE	$\overline{RD}$	$\overline{WR}$	DB0	DB1	DB2	DB3	DB4	DB5	DB6	DB7	VSS
	A0	$\overline{CS}$	$\overline{BD}$	QA3	QA2	QA1	QA0	QB3	QB2	QB1	QB0	SL0	SL1	SL2	SL3	SFT	CTL/S	RL0	RL1	VCC
8282	DI0	DI1	DI2	DI3	DI4	DI5	DI6	DI7	$\overline{OE}$	GND	STB	DO7	DO6	DO5	DO4	DO3	DO2	DO1	DO0	VCC
8284, -1	CSYN	PCLK	$\overline{AEN1}$	RDY1	RDY	RDY2	$\overline{AEN2}$	CLK	GND	RE	$\overline{RES}$	OSC	F/$\overline{C}$	EFI	$\overline{ASYN}$	X2	X1	VCC		
8286	A0	A1	A2	A3	A4	A5	A6	A7	$\overline{OE}$	GND	T	B7	B6	B5	B4	B3	B2	B1	B0	VCC
8287	A0	A1	A2	A3	A4	A5	A6	A7	$\overline{OE}$	GND	T	B7	B6	B5	B4	B3	B2	B1	B0	VCC
8288	IOB	CLK	S1	DT/$\overline{R}$	ALE	AEN	MRDC	AMWC	NWTC	GND	IOWC	AIOWC	IORC	INTA	CEN	DEN	M/PDN	S2	S0	VCC
8300 SERIES																				
8303	A0	A1	A2	A3	A4	A5	A6	A7	ChDi	GND	TR/$\overline{RC}$	B7	B6	B5	B4	B3	B2	B1	B0	VCC
8304	A0	A1	A2	A3	A4	A5	A6	A7	ChDi	GND	TR/$\overline{RC}$	B7	B6	B5	B4	B3	B2	B1	B0	VCC
8307	A0	A1	A2	A3	A4	A5	A6	A7	$\overline{T}$	GND	$\overline{R}$	B7	B6	B5	B4	B3	B2	B1	B0	VCC
8308	A0	A1	A2	A3	A4	A5	A6	A7	$\overline{T}$	GND	$\overline{R}$	B7	B6	B5	B4	B3	B2	B1	B0	VCC
8310	$\overline{WET}$	DI4	DI3	DI2	DI1	DO1	DO2	DO3	DO4	GND	DO5	DO6	DO7	DO8	DI8	DI7	DI6	DI5	$\overline{WE2}$	VCC
8311	$\overline{CLR}$	DI4	DI3	DI2	DI1	DO1	DO2	DO3	DO4	GND	DO5	DO6	DO7	DO8	DI8	DI7	DI6	DI5	$\overline{STR}$	VCC
8700 SERIES																				
8741	TST0	XTL1	XTL2	$\overline{RE}$	$\overline{SS}$	$\overline{CS}$	EA	$\overline{RD}$	A0	$\overline{WR}$	SYNC	D0	D1	D2	D3	D4	D5	D6	D7	VSS
	P20	P21	P22	P23	PROG	VDD	P10	P11	P12	P13	P14	P15	P16	P17	P24	P25/$\overline{IF}$	P26/$\overline{DO}$	P27/$\overline{DC}$	TST1	VCC
8748	T0	XTL1	XTL2	$\overline{RE}$	$\overline{SS}$	$\overline{INT}$	EA	$\overline{RD}$	$\overline{PSEN}$	$\overline{WR}$	ALE	DB0	DB1	DB2	DB3	DB4	DB5	DB6	DB7	VSS
	P20	P21	P22	P23	PROG	VDD	P10	P11	P12	P13	P14	P15	P16	P17	P24	P25	P26	P27	T1	VCC
8749	T0	XTL1	XTL2	$\overline{RE}$	$\overline{SS}$	$\overline{INT}$	EA	$\overline{RD}$	$\overline{PSEN}$	$\overline{WR}$	ALE	DB0	DB1	DB2	DB3	DB4	DB5	DB6	DB7	VSS
	P20	P21	P22	P23	PROG	VDD	P10	P11	P12	P13	P14	P15	P16	P17	P24	P25	P26	P27	T1	VCC
8755	PRG/$\overline{CE}$	CE2	CLK	RE	VDD	RDY	IO/$\overline{M}$	$\overline{IOR}$	RD	$\overline{IOW}$	ALE	AD0	AD1	AD2	AD3	AD4	AD5	AD6	AD7	VSS
	A8	A9	A10	PA0	PA1	PA2	PA3	PA4	PA5	PA6	PA7	PB0	PB1	PB2	PB3	PB4	PB5	PB6	PB7	VCC
80000 SERIES																				
80186	AD15	AD7	A14	AD6	A13	AD5	A12	AD4	VCC	A11	AD3	A10	AD2	A9	AD1	A8	AD0	DRQ0	DRQ1	TRI0
	TRI1	TRQ0	TRQ1	$\overline{RES}$	PCS0	VSS	PCS1	PCS2	PCS3	PCS4	PCS5	PCS6	LCS	UCS	$\overline{MCS3}$	MCS2	MCS1	MCS0	DEN	DT/$\overline{R}$
	INT3	INT2	VCC	INT1	INT0	NMI	$\overline{TST}$	$\overline{LOCK}$	SRDY	HOLD	HLDA	$\overline{S0}$	$\overline{S1}$	$\overline{S2}$	ARDY	CLKQ	RE	X2	X1	VSS
	ALE/Q	$\overline{RD}$/$\overline{QD}$	WR/Q1	$\overline{BHE}$	A19/S6	A18/S5	A17/S4	A16/S3												
80188	AD15	AD7	A14	AD6	A13	AD5	A12	AD4	VCC	A11	AD3	A10	AD2	A9	AD1	A8	AD0	DRQ0	DRQ1	TRI0
	TRI1	TRQ0	TRQ1	$\overline{RES}$	PCS0	VSS	PCS1	PCS2	PCS3	PCS4	PCS5	PCS6	LCS	UCS	MCS3	MCS2	MCS1	MCS0	DEN	DT/$\overline{R}$
	INT3	INT2	VCC	INT1	INT0	NMI	$\overline{TST}$	$\overline{LOCK}$	SRDY	HOLD	HLDA	$\overline{S0}$	S1	$\overline{S2}$	ARDY	CLKQ	RE	X2	X1	VSS
	ALE/Q	$\overline{RD}$/$\overline{QD}$	$\overline{WR}$/Q1	S7	A19/S6	A18/S5	A17/S4	A16/S3												

Analog to Digital CONVERTERS Digital to Analog

ADC0801	$\overline{CS}$	$\overline{RD}$	$\overline{WR}$	CLKI	$\overline{INTR}$	VI(+)	VI(−)	AGND	VRF2	DGND	DB7(M)	DB6	DB5	DB4	DB3	DB2	DB1	DB0(LL)	CLKR	VCC(5V)
ADC0803	SAME AS ADC0801																			
ADC0804	SAME AS ADC0801																			
ADC0808	IN3	IN4	IN5	IN6	IN7	STRT	EOC	2^{-5}	QEN	CLK	VCC	REF(+)	GND	2^{-7}	2^{-6}	REF(−)	2^{-8}LB	2^{-4}	2^{-3}	2^{-2}
	2-/MB	ALE	ADDC	ADDB	ADDA	IN0	IN1	IN2												
ADC0809	SAME AS ADC0808																			
ADC0816	IN3	IN4	IN5	IN6	IN7	IN8	IN9	IN10	IN11	IN12	IN13	IN14	EOC	IN15	MLTQ	STRT	VCC	COMI	REF(+)	GND
	QEN	CLK	REF(−)	2^{-8}B	2^{-7}	2^{-6}	2^{-5}	2^{-4}	2^{-3}	2^{-2}	2-/MB	ALE	ADDD	ADDC	ADDB	ADDA	EXC	IN0	IN1	IN2
ADC0817	SAME AS ADC0816																			
DAC0806 (MC1408P6)	NC	GND	BEE	IO	MBA1	A2	A3	A4	A5	A6	A7	A8LB	VCC	$V_{(RF+)}$	$V_{(RF-)}$	COMP				
DAC0807 (MC1408P7)	SAME AS DAC0806																			
DAC0830	$\overline{CS}$	$\overline{WR1}$	AGND	DI3	DI2	DI1	DIO(LB)	$V_{(REF)}$	RFB	DGND	IQ1	IQ2	DI7(MB)	DI6	DI5	DI4	$\overline{XFER}$	$\overline{WR2}$	I(LE)	VCC
DAC0831	SAME AS DAC0830																			
DAC1008	$\overline{CS}$	$\overline{WR}$	BT1/$\overline{BT2}$	$\overline{XFER}$	DI5	DI6	DI7	DI8	DI9(MB)	GND	IQ2	IQ1	VREF	RFB	DIO(LB)	DI1	DI2	DI3	DI4	VCC
DAC1020	IQ1	IQ2	GND	A1(MB)	A2	A3	A4	A5	A6	A7	A8	A9	A10(LB)	V+	V(REF)	RFB				
DAC1022	SAME AS DAC1020																			
DAC1222	IQ1	IQ2	GND	A1(MB)	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12(LB)	V+	V(REF)	RFB		
DAC1230	$\overline{CS}$	$\overline{WR1}$	AGND	DI7	DI6	DI5	DI4	VREF	RFB	DGND	IQ1	IQ2	DI11(MB)	DI10	DI9	DI8	$\overline{XFER}$	$\overline{WR2}$	BT1/$\overline{BT2}$	VCC
DAC1231	SAME AS DAC1230																			

INTEGRATED CIRCUIT PIN-OUTS

PART NUMBER. JE-MIC Plastic Chart (2 PAGES 1 SHEET) 8½" X 11". $5.95/Set

Page 2 of 2

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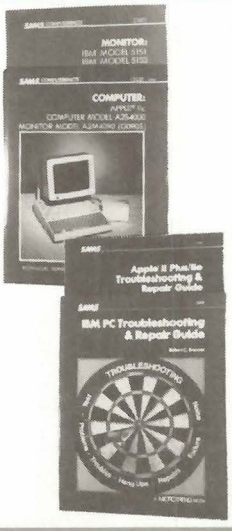

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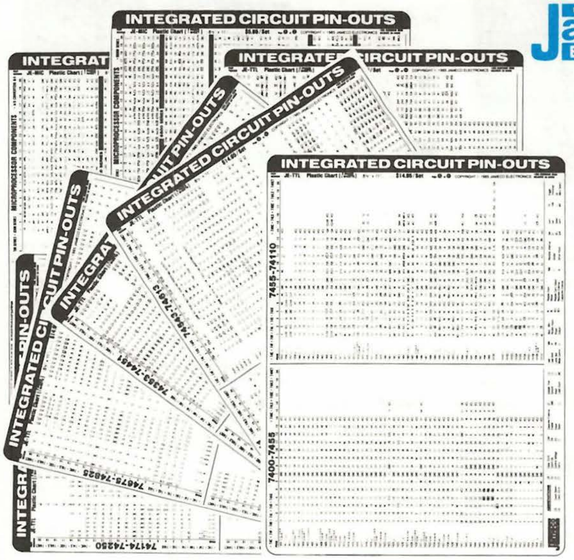

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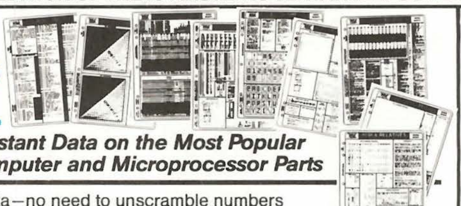

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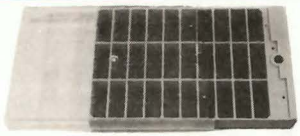
BUG BOX™ SYSTEMS



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- **Fixed Compartments**
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• 30 individual compartments • Stores sixty 8-pin or thirty 14-pin or 16-pin DIPs • Heavy duty injection molded plastic • Clear plastic cover slides and locks • Cover marked with numbers 1 through 30 • Color: blue • Compartment size: 1″W x .38″H x .5″D • Box size: 4.9″L x 3.3″W x .6″D • Weight: 1.75 oz.

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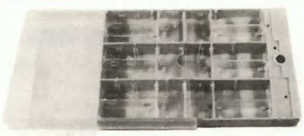
BGX	Bug Box.	**$2.39**	**$2.19**



LSI BUG BOX

- **Adjustable Compartments**
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• Designed to store large IC's, resistors, capacitors and diodes • Divided into 3 compartments measuring 1″W x 1.38″H x .5″D • 6 vertical and 6 horizontal dividers included • Cover marked with numbers 1 through 30 • Heavy duty injection molded plastic • Color: blue • Box size: 4.9″L x 3.3″W x .6″D • Wt: 1.75 oz.

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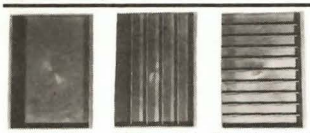

OPEN VERTICAL HORIZONTAL

BUG TRAYS

- **Molded Rigid Plastic**
- **Three Different Styles**
- **Fits in Bug Cage (BGC)**

Three styles: **Open** (1 compartment 3.19″W x 4.6″L x .44″D)
Vertical (5 compartments .6″W x 4.6″L x .44″D)
Horizontal (10 comprts. .44″W x 3.19″L x .44″D)

• Ideal for tools, hardware, components, drill bits, clips, etc. • Tray Size: 4.813″L x 3.55″W x .5″D

Part No.	Description	1-9	10+
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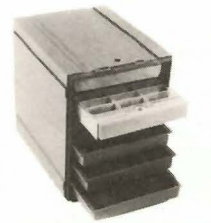

BUG CAGE

• Six locations store Bug Boxes, LSI Bug Boxes or Bug Trays • Modular and interlocking • Heavy duty injection molded plastic • Each cage has 6 slip-in locations • Color: blue • Cage size: 5⅛″H x 3⅞″W x 5″D

Part No.	Description	1-9	10+
BGC	1 Bug Cage (without Bug Boxes).	**$ 4.49**	**$ 3.95**
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• Clear plastic snap-in cover to seal and hold 6 Bug Boxes, LSI Bug Boxes or Bug Trays in place inside the Bug Cage.

Part No.		1-9	10+
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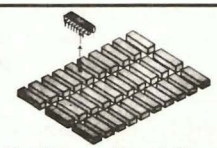

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• Static discharge protection for CMOS and MOSFET devices • Pre-cut to dimensions of Bug Boxes • BRG-030 contains 30 foam rectangles 1″ x .35″ • BBR-006 contains 6 foam rectangles 2.08″ x 1″

Part No.	Description	1-9	10+
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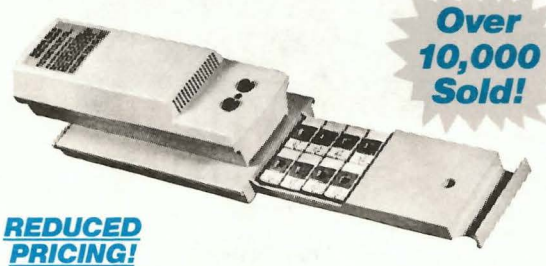
Ultra-Violet Products, Inc.



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ERASES 1 CHIP IN 15 MINUTES
ERASES 8 CHIPS IN 21 MINUTES

• Erases all EPROMs • Erases up to 8 chips in 21 minutes (1 chip in 15 minutes) • Maintains constant exposure distance of 1″ • Special conductive foam liner eliminates static build-up • Built-in safety lock to prevent UV exposure • Complete with holding tray for 8 chips • UV intensity: 6800 UW/CM² • Size: 9″L x 3.70″W x 2.60″H

Part No.	Description	Price
DE-4	UV-EPROM Eraser.	**$69.95**
UVS-11EL	Replacement Lamp for DE-4.	**$19.95**

The Memorase C-25 EPROM Eraser

ERASES 25 CHIPS IN 10 MINUTES

Special Filtered Viewport!

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Part No.	Description	Price
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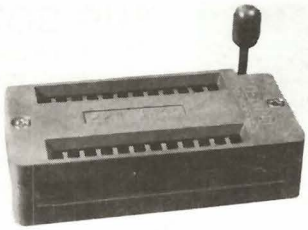
3M Zero Insertion Pressure Sockets 3M

General Description

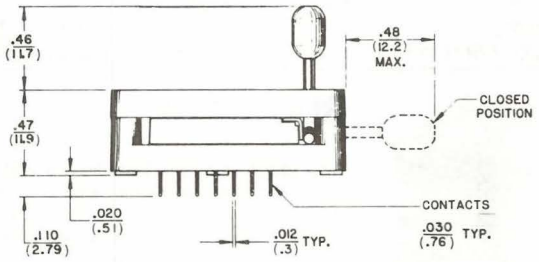
The ZIP DIP II socket has been designed for the utmost simplicity in its mechanical action. With the flip of a locking lever the socket is ready to operate with exceptionally good electrical contact. Flip the lever again and the device may be extracted with zero pressure being exerted on the leads by the socket contacts.

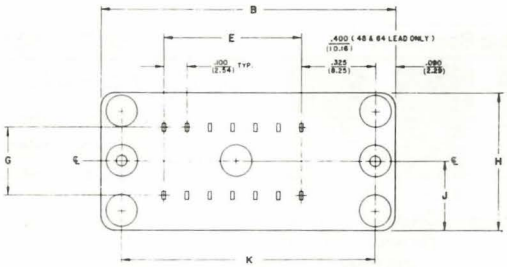
Physical Description

Body Material. . . . . Polysulfone (150°C)
Contact Material. . . . . BeCu
Plating. . . . . Nickel Boron
Contact Resistance. . . . . < .005 ohms
Operating Life. . . . . .50,000 Tests
Insertion-Extraction Pressure. 0
Voltage Breakdown. . . . . 2,000 Volts



ZIP DIP II 224-3344 SOCKET

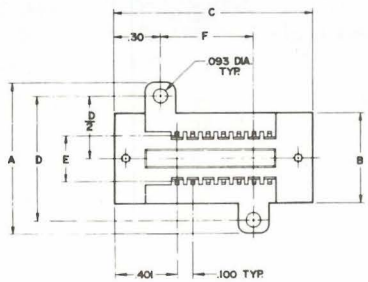


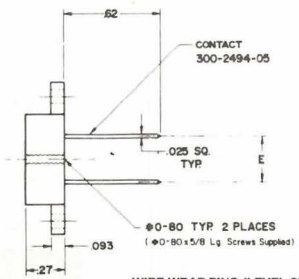


SOCKET PART NO.	LDS	LDS CTRS ACCEPTED	DIMENSIONS						PRICE	
			B	E	G	H	J	K	1-9	10 up
214-3339	14	.17-.43 (4.3-10.9)	1.30 (33.0)	.604 (15.34)	.300 (7.62)	.603 (15.32)	.302 (7.67)	1.115 (28.32)	$4.89	$4.39
216-3340	16	.17-.43 (4.3-10.9)	1.39 (35.3)	.705 (17.91)	.300 (7.62)	.602 (15.29)	.301 (7.64)	1.218 (30.94)	$4.69	$4.29
218-3341	18	.17-.43 (4.3-10.9)	1.49 (37.8)	.805 (20.45)	.300 (7.62)	.598 (15.19)	.299 (7.59)	1.317 (33.45)	$5.95	$5.49
220-3342	20	.17-.43 (4.3-10.9)	1.59 (40.9)	.905 (22.99)	.300 (7.62)	.603 (15.32)	.301 (7.64)	1.419 (36.04)	$6.39	$5.89
222-3343	22	.27-.53 (6.9-13.5)	1.69 (42.9)	1.007 (25.58)	.400 (10.16)	.703 (17.86)	.352 (8.94)	1.519 (38.58)	$7.95	$7.29
224-3344	24	.47-.73 (11.9-18.5)	1.79 (45.5)	1.107 (28.12)	.600 (15.24)	.907 (23.04)	.454 (11.53)	1.610 (40.89)	$6.19	$5.69
228-3345	28	.47-.73 (11.9-18.5)	1.99 (50.5)	1.307 (33.20)	.600 (15.24)	.905 (22.99)	.452 (11.48)	1.827 (46.41)	$6.69	$6.09
240-3346	40	.47-.73 (11.9-18.5)	2.60 (66.0)	1.913 (48.59)	.600 (15.62)	.898 (22.81)	.449 (11.40)	2.421 (61.49)	$8.95	$8.19

— ZIP DIP® II **SOCKETS** Mount in ZIP DIP® II **RECEPTACLES** *ONLY* —

3M Zero Insertion Pressure Receptacles 3M





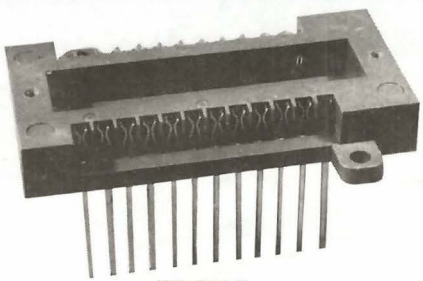
WIRE WRAP PINS (LEVEL 3)

General Description

These receptacles are ideally suited for situations involving high volumes of hand testing. Downtime to replace sockets has been eliminated. Your test station can now process literally millions of devices before having to replace your ZIP DIP receptacle.

Physical Description

Body Material. . . . . Polysulfone
Contact Material. . . . . BeCu
Plating. . . . . Nickel Boron
Contact Type. . . . . Wire Wrap
Temperature Range. . . . . –55°C to 150°C
Contact Resistance. . . . . < .005 ohms



ZIP DIP II 224-3597 RECEPTACLE

RECEPTACLE PART NO.	LDS	DIMENSIONS						PRICE	
		A	B	C	D	E	F	1-9	10 up
214-3592	14	1.000	.600	1.283	.820	.300	.600	$ 9.39	$ 8.59
216-3593	16	.960	.560	1.375	.773	.300	.700	$ 7.49	$ 6.79
218-3594	18	.950	.550	1.486	.770	.300	.804	$10.49	$ 9.49
220-3595	20	1.000	.600	1.583	.820	.300	.900	$ 9.59	$ 8.79
222-3596	22	1.060	.650	1.687	.875	.405	1.005	$11.95	$10.95
224-3597	24	1.265	.860	1.772	1.080	.603	1.100	$ 7.49	$ 6.89
228-3598	28	1.260	.860	1.983	1.085	.600	1.300	$ 8.95	$ 8.09
240-3599	40	1.270	.865	2.583	1.085	.606	1.900	$11.79	$10.79

IC SOCKETS

TO-3 SOCKETS & INSULATORS • HEADER PLUGS & COVERS • IC/SOCKET RAILS

IC Soldertail — Low Profile (Tin) Sockets

Part No.	1-9	10-99	100-999
8 pin LP.	$.11	$.10	$.09
14 pin LP.	.12	.11	.10
16 pin LP.	.13	.12	.11
18 pin LP.	.15	.14	.13
20 pin LP.	.19	.16	.15
22 pin LP.	.21	.19	.17
24 pin LP (.6"W).	.25	.23	.19
24 pin SLP (.3"W).	.55	.52	.49
28 pin LP.	.27	.24	.21
40 pin LP.	.29	.26	.23

1/8" Lead Length — 5/32" Body Height

Soldertail Standard (Tin)

Part No.	1-9	10-99	100-999
14 pin ST.	$.39	$.36	$.33
16 pin ST.	.42	.39	.35
18 pin ST.	.51	.46	.41
20 pin ST.	.59	.53	.48
22 pin ST.	.63	.57	.51
24 pin ST.	$ .65	$.59	$.53
28 pin ST.	.75	.69	.61
36 pin ST.	.95	.85	.77
40 pin ST.	1.05	.95	.85

1/8" Lead Length — 9/32" Body Height

Soldertail Standard (Gold)

Part No.	1-9	10-99	100-999
8 pin SG.	$.36	$.33	$.29
14 pin SG.	.45	.42	.39
16 pin SG.	.51	.46	.41
18 pin SG.	.65	.59	.53
20 pin SG.	.69	.63	.55
22 pin SG.	$ .75	$ .67	$ .59
24 pin SG.	.77	.71	.66
28 pin SG.	.89	.79	.77
36 pin SG.	1.05	.95	.85
40 pin SG.	1.29	1.19	1.05

1/8" Lead Length — 9/32" Body Height

Wire Wrap Sockets (Gold) Level 3

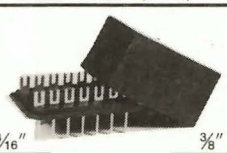
Part No.	1-9	10-99	100-999
8 pin WW.	$.59	$.55	$.49
10 pin WW.	.63	.57	.53
14 pin WW.	.65	.59	.55
14 pin TWW*.	.49	.45	.39
16 pin WW.	.69	.65	.59
16 pin TWW*.	.55	.49	.45
18 pin WW.	.99	.95	.89
20 pin WW.	$ .99	$ .89	$ .79
22 pin WW.	1.09	.99	.89
24 pin WW.	1.19	1.09	.99
28 pin WW.	1.39	1.29	1.19
36 pin WW.	1.79	1.65	1.49
40 pin WW.	1.89	1.69	1.55

5/8" Lead Length — 9/32" Body Height

*TIN PLATING (TWW)

Header Plugs (Gold)

Part No.	1-9	10-99	100-999
14 pin HP.	$ .55	$ .49	$ .45
16 pin HP.	.59	.55	.49
20 pin HP.	.79	.75	.69
24 pin HP.	.99	.89	.79
28 pin HP.	1.19	1.09	.99
40 pin HP.	1.49	1.39	1.29



3/16" Lead Length — 3/8" Cover Height

Header Covers

Part No.	1-9	10-99	100-999
14 pin HC.	$.15	$.13	$.12
16 pin HC.	.19	.17	.15
20 pin HC.	.29	.27	.25
24 pin HC.	.29	.27	.25
28 pin HC.	.45	.42	.39
40 pin HC.	.49	.45	.42

Plastic TO-3 Socket and Metal Insulator

TO-3 Sockets and Metal Insulator for LM309K, LM320K, LM340K, etc.

Part No.	1-9	10-99	100-999
MP-3452-T (Socket).	$.35	$.29	$.25
ITO-3 (Metal Insulator).	.09	.08	.07

TEXTOOL 68 Lead Chip Carrier Socket

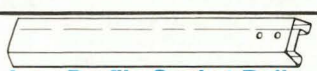
For 80186, 80188, and 80286 (IC's)

Part No.	1-9	10-99	100-999
268-50-1102.	$10.95	$10.49	$9.95

PLASTIC RAILS

Integrated Circuit Rails

Part No.	Inches	Fits IC Packages	1-9	10-99	100-999
RIC-5	5"	8,14,16,18,20,22	$.10	$.08	$.07
RIC-10	10"	8,14,16,18,20,22	.19	.15	.13
RIC-20	20"	8,14,16,18,20,22	.29	.25	.21
RIC-210	10"	24,28,36,40	.21	.19	.17
RIC-220	20"	24,28,36,40	.31	.28	.25



Low Profile Socket Rails

Part No.	Inches	Fits Socket Pkgs.	1-9	10-99	100-999
RLP-10	10"	8,14,16,18,20,22	$.19	$.16	$.13

Wire Wrap Socket Rails — Level 1-3

RWW-7	7"	24,28,36,40	.35	.29	.25
RWW-10	10"	8,14,16,18,20,22	.29	.25	.19
RRS-1	(Rubber Stops used to plug Plastic Rail ends)		.04	.03	.02

CONDUCTIVE FOAM

NCF-1 Conductive Foam (12" x 12" x ¼") Hard Black. **$4.95**

NCF-2 Conductive Foam (12" x 24" x ¼") Hard Black. **$8.95**

SPECIAL!!

NCF-3 Conductive Foam (24" x 36" x ¼") Hard Black. **$14.95**

GRAB BAGS

COLECO COMPUTER BOARD

8 each 4164's

Over 150 components, including 8 ea. 4164's, 8 ea. 74LS Devices, Linear IC's, 5 connectors, 6 sockets, coils, crystals, ¼ watt resistors, capacitors, diodes, etc. Size: 14"L x 5½"W x ¾"H

GB192. . . . . $6.95

MYLAR CAPACITORS

GB101. . . . . $3.00

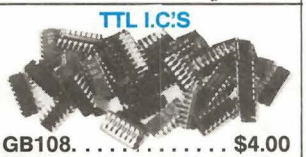
ELECTROLYTIC CAPACITORS

GB102. . . . . $4.00

HEATSINKS

GB123. . . . . $4.00

TTL I.C.'S



GB108. . . . . $4.00

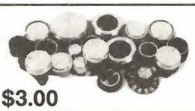
COLECO GAME BOARD

8 each 4116's

Over 150 components, including 8 ea. 4116's, Z80A, 14 ea. 74LS Devices, 3 connectors, ¼W resistors, capacitors, diodes, etc. Size: 9¾"L x 10"W x 1"H

GB191. . . . . $4.95

KNOBS



20 each assorted types

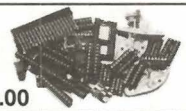
GB185...$3.00

DISPLAYS

50 each assorted types

GB162...$9.00

SOCKETS



30 each assorted types

GB163...$4.00

COILS & CHOKES

50 each

GB137...$3.00

— Spec Sheets Not Available —

CAPACITORS

Part No.	Description	Price
GB100	100 each Ceramic Disc (10pf-.1mf)	$3.00
GB101	60 each Mylar	$3.00
GB102	60 each Electrolytics	$4.00
GB103	40 each Tantalum (tubular and dipped)	$4.00

INTEGRATED CIRCUITS

GB108	50 each TTL Series — marked. (7400, 74L, 74H, 74S, etc.)	$4.00
GB109	30 each Linear — marked. (LM301,307,741,308, XR2262, etc.)	$4.00
GB150	20 each Shift Registers — marked. (2510, 2518, 2532, 2533, etc.)	$4.00
GB157	50 each DTL Series — marked. (DM930,932,936,946, etc.)	$5.00
GB158	6 pcs. Positive Voltage Regulators (TO-3 case). (7805,06,12,15,18,24, etc.) Linear marked	$4.00
GB159	6 pcs. Negative Voltage Regulators (TO-3 case). (7905,06,12,15,18,24, etc.) Linear marked	$4.00
GB170	50 each Assorted 74LS TTL Series	$4.00
GB172	10 pcs. 78M Positive Voltage Regulators. (78M05,08,12,15,20,24, etc.) Linear marked	$3.00
GB181	25 pcs. RAMs and PROMs — marked. (1103,2102,4116,5261,5262,82S10,S11, S16,S21,S23,S25,S123,S126,S129, etc.)	$3.00
GB193	50 each Assorted N8H, N8T, N8000 Series — marked. (N8H16, N8T10, N8251, N8262, N8820, etc.)	$5.00

LEDS—READOUTS

GB110	100 each Assorted LEDs (various colors and sizes). (XC556, XC526, etc.)	$6.00
GB162	50 each 7-Segment Displays and Stick Displays. (various colors and sizes)	$9.00
GB186	500 each (same description as GB110 above)	$15.00

POTENTIOMETERS

GB113	30 each Miniature Trimmers (100 ohm-1 Meg)	$3.00
GB134	24 each ⅜" square single-turn PC Mount. (untested — 10 ohm to 500 ohm) marked	$2.00
GB135	24 each ⅜" square single-turn PC Mount. (untested — 1K to 50K) marked	$2.00
GB174	25 each ¼ watt thumbwheel single-turn. (500 ohm to 5 Meg)	$3.00
GB184	25 pcs. Volume Control Pots. (100Ω thru 100K) no bushing	$3.00

DIODES

Part No.	Description	Price
GB107	100 each Silicon (1N914/1N4148/1N4444)	$3.00
GB175	100 each 1-3 amp (cathode band) silicon rectifiers	$3.00

RESISTORS

GB116	200 each ¼ watt resistor assortment	$3.00
GB117	200 each ½ watt resistor assortment	$3.00
GB118	30 each Wire Wound 5, 10, 20W (.1-100 ohm)	$4.00
GB154	100 each 1 and 2 watt resistor assortment	$3.00

SWITCHES

GB120	25 each Miniature slide	$3.00
GB165	40 assorted toggle, rocker, pushbutton	$8.00
GB179	20 each Dip Switches (assorted positions)	$8.00

HARDWARE

GB139	40 each Terminal Strips. Solder and screw types (3 to 8 terminals)	$3.00
GB140	150 each Spacers, standoffs, insulators. (metal, nylon and plastic)	$2.00
GB141	200 each Washers and Spacers (nylon and teflon)	$3.00
GB142	50 each Chassis mounting feet (rubber and plastic)	$3.00
GB145	100 each Lugs—crimp-on (some insulated)	$3.00
GB147	200 each screws and bolts (assorted styles and sizes)	$2.00
GB166	48 Threaded metal spacers (½-2" long)	$3.00

POPULATED PRINTED CIRCUIT BOARDS

GB160	1 Printed Circuit Board. (Contains 50-75 components on each board)	$1.00
GB191	Coleco TV Game Board (see picture at top of page). (Contains over 150 components, 8 ea. 4116's, Z80A, etc.)	$4.95
GB192	Coleco Computer Board (see picture at top of page). (Contains over 150 components, 8 ea. 4164's, 74LS IC's, etc.)	$6.95

MISCELLANEOUS

GB123	30 each Heat Sinks — assorted sizes	$3.00
GB124	6 each assorted calculator-type keyboards	$5.00
GB127	100 each Transistors — plastic and power	$3.00
GB131	30 each 6" shrink tubing, assorted sizes and colors	$4.00
GB137	50 each Chokes, coils and inductors. (molded, wire and adjustable)	$3.00
GB138	2 each Speakers, 2½", 8 ohm, .30 watt	$1.95
GB163	30 each Sockets (assorted IC and transistor)	$4.00
GB177	200 ea.½"-1" shrink tubing, assorted colors and sizes	$3.00
GB182	5 each Toy Motors (operating voltage 1.5V-6.0V)	$2.00
GB185	20 each Knobs (assorted styles, sizes and colors)	$3.00
GB187	25 each Assorted Cherry Keycaps	$2.00

JAMECO'S SURPRISE GRAB BAG

Over 100 miscellaneous electronic components and hardware (keyboard included). You'll be surprised —

GB190 Any GB190 is WORTH 3 TIMES ITS PRICE! **$9.95**

POWER CORD GRAB BAG

10 each Assorted Power Cords (open end, 2-conductor and 3-conductor)

GB188 PLUG INTO A GOOD DEAL!. $4.95

— ALL GRAB BAGS ARE NON-RETURNABLE —

FANS AND ACCESSORIES

Torin

4.68" Muffin-Style Fan

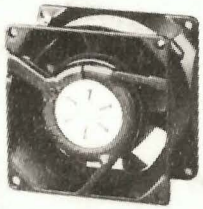
"Super Quiet" with virtually inaudible sound level.

• 50cfm (cubic feet per minute) • 4.68" square x 1.50" deep • Sleeve bearing • Venturi block-zinc frame • UL recognized • CSA certified • Rating: 115VAC @ 50/60Hz - 11.5/10 Watts - .124/.110 Amps • Manufacturer may vary

Part No.	1-9	10+
MUF60.....	$9.95	$8.95

EG&G ROTRON

3.12" Sprite-Style Fan



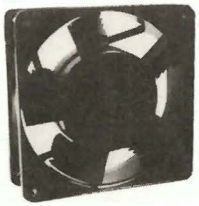
"Super Quiet" with virtually inaudible sound level.

• 28cfm (cubic feet per minute) • 3.12" square x 1.64" deep • Sleeve bearing • Venturi block-zinc frame • UL recognized • CSA certified • Rating: 115VAC @ 50/60Hz, 13/11 Watts, .23/.21 Amps • Manufacturer may vary

Part No.	1-9	10+
SU2A1.....	$8.95	$7.95

EG&G ROTRON

4.71" Muffin-Style Fan



The **dependable, low cost, largest selling fan for commercial cooling applications.**

• 105cfm (cubic feet per minute) • 4.71" square x 1.50" deep • Sleeve bearing • Zinc die casting • UL recognized • CSA certified • Acoustical rating as low as NC-43 • Rating: 115VAC @ 50/60Hz – 15/14 Watts – .19/.16 Amps • Manufacturer may vary

Part No.	Description	1-9	10+
MU2A1	Fan (SPN-3-15-3475A).....	$12.95	$11.95
MU2A1U	Fan, Cleaned & Tested (used)	$ 6.95	$ 5.95
MFG481	Zinc plated steel wire finger guard (for Muffin-style fans)	$ 1.79	$ 1.39
MFF-1	Plastic finger guard filter (for Muffin-style fans)	$ 1.95	$ 1.49

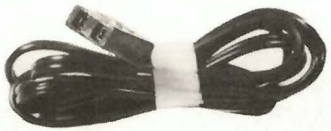
EG&G ROTRON

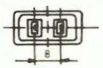
3.14" Sprite-Style Fan

• 35cfm (cubic feet per minute) • 3.14" square x 1.51" deep • Sleeve bearing • One piece zinc die casting • UL recognized • CSA certified • Acoustical rating as low as NC-17 • Rating: 115VAC @ 50/60Hz – 9.8/8.7 Watts – .120/.104 Amps • Manufacturer may vary

Part No.	Description	1-9	10+
PWS2107F	Fan.....	$11.95	$10.95
PWS2107U	Fan, Cleaned & Tested - (used)	$ 6.95	$ 5.95
SFG648	Zinc plated steel wire finger guard (for Sprite-style fans)	$ 1.69	$ 1.29

Fan Plug Cord for Muffin-Style Fans





The **PLC-1 Fan Plug Cord** has a connector on one end that plugs directly into fan terminals; the other end is open for soldering. Length: 3 feet

		1-9	10+
PLC-1	**Fan Plug Cord** (Used with the above Muffin-style fans).....	$.89	$.79

HEAT SINKS

For TO-220 Case

• Black Anodized
• 1 1/16"L x 7/8"W x 7/16"H
• Aluminum

Part No.	1-9	10+
291-36H	$.29	$.25

For TO-5 Case

• Black Anodized
• .72" x .250"
• Beryllium Copper
• Same as 2230B-5

Part No.	1-9	10+
205-CB	$.45	$.39

For TO-220 Case

• Black Anodized
• 1"W x 1 3/16"H x 1/2"D
• For SCR's or Linear IC's

Part No.	1-9	10+
6030B	$.35	$.29

For TO-3 Case

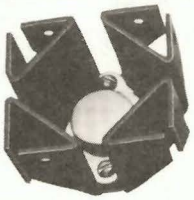
• Black Anodized
• ____"L x 1.56"H x .48"D
• Compact – Low Profile
• #671-3B – 1.40"L
• #672-3B – 2.00"L

Part No.	1-9	10+
671-3B	$.49	$.45
672-3B	$.55	$.49

For TO-220 Cases

• Black Anodized
• 1 5/8"L x 1 1/4"W x 1 1/4"H

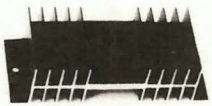
Part No.	1-9	10+
LAT0127B	$.99	$.89



For TO-3 Case

• Black Anodized
• 1 7/8"L x 1 7/8"W x 1 1/4"H

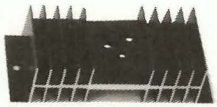
Part No.	1-9	10+
690-TO3	$.99	$.89



Drill-Your-Own Case

• Quality Aluminum (Black Anodized)
• 4 3/4"L x 1 1/2"W x 1 1/4"H
• UNDRILLED – You Drill Your Own

	1-9	10+
DUDE-3.....	$2.89	$2.49



For TO-3 Case

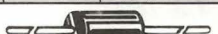
• Quality Aluminum (Black Anodized)
• 4 3/4"L x 1 1/2"W x 1 1/4H
• Pre-Drilled for a TO-3 Case

	1-9	10+
DUDE-4.....	$2.95	$2.59

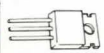
DIODES

Description	PART NO.	Cross-Ref. to ECG	Vz VOLTS	W	IZT mA	ZZT@IZT Ohms	PRICE 1-99	100-999	1000+
ZENER DIODES DO-35 CASE (Similar to DO-41 Case)	1N746	5005A	3.3	400m	20	28	4/.59	.12	.08
	1N751	5010A	5.1	400m	20	17	4/.59	.12	.08
	1N752	136A	5.6	400m	20	11	4/.59	.12	.08
	1N753	5013A	6.2	400m	20	7	4/.59	.12	.08
	1N754	140A	6.8	400m	20	5	4/.59	.12	.08
	1N757	5018A	9.0	400m	20	6	4/.59	.12	.08
	1N759	5021A	12.0	400m	20	30	4/.59	.12	.08
	1N959	5016A	8.2	400m	20	15	4/.79	.16	.13
	1N965	5024A	15.0	400m	8.5	16	4/.79	.16	.13
	1N5232	5011A	5.6	500m	20	11	4/.79	.16	.11
	1N5235	5014A	6.8	500m	20	5	4/.79	.16	.11
	1N5236	5015A	7.5	500m	20	6	4/.79	.16	.11
	1N5242	5021A	12.0	500m	20	30	4/.79	.16	.11
	1N5245	5024A	15.0	500m	8.5	16	4/.79	.16	.11
1 WATT ZENER DO-41 CASE	1N4729	134A	3.6	1w	69	10	4/.79	.16	.11
	1N4730	5067A	3.9	1w	64	9	4/.79	.16	.11
	1N4731	5068A	4.3	1w	58	9	4/.79	.16	.11
	1N4732	5069A	4.7	1w	53	8	4/.79	.16	.11
	1N4733	135A	5.1	1w	49	7	4/.79	.16	.11
	1N4734	136A	5.6	1w	45	5	4/.79	.16	.11
	1N4735	137A	6.2	1w	41	2	4/.79	.16	.11
	1N4736	5071A	6.8	1w	37	3.5	4/.79	.16	.11
	1N4738	5072A	8.2	1w	31	4.5	4/.79	.16	.11
	1N4742	142A	12.0	1w	21	9	4/.79	.16	.11
	1N4744	145A	15.0	1w	17	14	4/.79	.16	.11


DO-41 Case


DO-201A Case


TO-202 Case


TO-220 Case


DO-5 Case


179-01 Case

Description	PART NO.	Cross-Ref. to ECG	PIV V	if A	CASE	PRICE 1-99	100-999	1000+
SWITCHING DIODE DO-35 CASE	1N3600	519	50	200m	DO-35 } Similar to DO-41	6/.59	.08	.06
	1N4148(1N914)	519	75	10m	DO-35 } Similar to DO-41	15/.89	.05	.03
	1N4154	519	35	10m	DO-35 } Similar to DO-41	12/1.00	.07	.06
General Purpose DIODE DO-7 CASE	1N270	109	80	200m	DO-7 } Similar to DO-41	4/.79	.16	.11
	1N456	177	25	40m	DO-7 } Similar to DO-41	6/.49	.07	.06
	1N458	177	150	7m	DO-7 } Similar to DO-41	6/1.00	.14	.11
	1N485	177	180	10m	DO-7 } Similar to DO-41	5/.89	.15	.12
1 AMP/3 AMP SILICON RECTIFIERS DO-41 CASE DO-201A CASE	1N4001	116	50PIV	1 AMP	DO-41	12/1.00	.07	.05
	1N4002	116	100PIV	1 AMP	DO-41	12/1.09	.08	.06
	1N4003	116	200PIV	1 AMP	DO-41	12/1.19	.09	.07
	1N4004	116	400PIV	1 AMP	DO-41	12/1.29	.10	.08
	1N4005	116	600PIV	1 AMP	DO-41	10/1.09	.10	.08
	1N4006	125	800PIV	1 AMP	DO-41	10/1.19	.11	.09
	1N4007	125	1000PIV	1 AMP	DO-41	10/1.29	.12	.10
	1N5400	5800	50PIV	3 AMP	DO-201A	3/.59	.17	.15
	1N5401	156	100PIV	3 AMP	DO-201A	3/.69	.20	.18
	1N5402	5802	200PIV	3 AMP	DO-201A	3/.79	.23	.21
	1N5404	5804	400PIV	3 AMP	DO-201A	3/.89	.27	.24
	1N5406	5806	600PIV	3 AMP	DO-201A	3/.99	.30	.27
	1N5408	5809	1000PIV	3 AMP	DO-201A	3/1.19	.35	.29
12 AMP/20 AMP 35 AMP STUD RECTIFIERS DO-4 CASE DO-5 CASE	1N1183	5980	50PIV	35 AMP	DO-5	1.19	1.09	.99
	1N1184	5982	100PIV	35 AMP	DO-5	1.29	1.19	1.09
	1N1185	5986	150PIV	35 AMP	DO-5	1.39	1.29	1.19
	1N1186	5986	200PIV	35 AMP	DO-5	1.49	1.39	1.29
	1N1188	5990	400PIV	35 AMP	DO-5	1.95	1.79	1.55
	1N1199A	5870	50PIV	12 AMP	DO-4 } Similar to DO-5	.59	.55	.49
	1N1200A	5872	100PIV	12 AMP	DO-4 } Similar to DO-5	.69	.65	.59
	1N1204A	5878	400PIV	12 AMP	DO-4 } Similar to DO-5	.89	.79	.69
	1N5816	----	150PIV	20 AMP	DO-4 } Similar to DO-5	1.95	1.49	1.25
Silicon Controlled Rectifier (SCR) FW BRIDGE RECTIFIERS AND TRIACS 179-01 CASE DO-5 CASE TO-202 CASE TO-220 CASE	C106B1	5455	200V	3.6A	SCR(2N6239) TO-202	.49	.45	.39
	C38B	5543	200V	35A	SCR(2N3898) DO-5	2.19	2.09	1.95
	C38M	5547	600V	35A	SCR(2N3899) DO-5	3.19	3.09	2.95
	C122B	5463	200V	8A	SCR TO-220	.89	.79	.69
	C122D	5465	400V	8A	SCR TO-220	1.19	1.09	.99
	C122M	----	600V	8A	SCR TO-220	1.59	1.49	1.39
	MDA 990-1	----	50V	12A	FW Bridge Rec. 179-01	1.49	1.39	1.29
	MDA 990-3	5322	200V	12A	FW Bridge Rec. 179-01	1.79	1.69	1.59
	MDA 990-6	(MDA2506)	600V	25A	FW Bridge Rec. 179-01	3.19	3.09	2.95
	SC146B	5633	200V	10A	TRIAC(2N6342) TO-220	.99	.89	.79
	SC146D	5635	400V	10A	TRIAC(2N6343) TO-220	1.39	1.29	1.19
	SC146M	----	600V	10A	TRIAC(2N6344) TO-220	1.95	1.79	1.65

TRANSISTORS

Part No.	Cross-Ref. to ECG	* Type Case	BVCEO Min.	VCE (Sat.) Max.	hFE Min-Max	PRICE 1-99	PRICE 100-999	PRICE 1000+
4N25-4N35	Photo-Transistors				See Page 43			
MPSA05	123AP	B6	60	.25	50-150	3/.59	.18	.16
MPSD05	123AP	F6	25	.5	30-80	4/.49	.11	.09
MPSA06	128	B6	80	.25	50-150	3/.59	.18	.16
TIP29A	152	M9	60	.7	15-150	.39	.35	.29
TIP30A	153	D9	−60	−.7	15-150	.39	.35	.29
TIP31A	152	M9	60	1.2	10-50	.45	.39	.35
TIP32A	153	D9	−60	−1.20	10-50	.47	.42	.37
TIP41A	331	M9	60	2.0	15-150	.49	.43	.39
TIP42A	332	D9	−60	−2.0	15-150	.59	.55	.49
MPSU51	189	O TO-202	30	.7	50 Min	.89	.79	.69
TIP101	--	N9	80	2.0	1K/20K	.55	.49	.45
MPF102	133	L6	JFET			.29	.25	.21
TIP102	--	N9	100	2.0	1K/20K	.55	.49	.45
TIP106	--	O9	−80	−2.0	1K/20K	.39	.35	.29
TIP120	261	N9	60	3.0	500 Min.	.49	.43	.39
TIP125	262	O9	−60	−4.0	1000 Min.	.39	.35	.29
2N918	108	C5	15	.4	20	.59	.55	.49
2N2219A	123AP	F2	40	.3	100-200	2/.79	.36	.32
2N2221A	123AP	F3	40	.3	40-120	3/1.19	.36	.32
PN2222	123AP	F6	40	.3	100-300	6/.69	.10	.09
2N2222A	123AP	F3	40	.3	100-300	3/1.00	.29	.25
MPQ2222 Quad	--	F7	40	.4	30 Min	1.19	1.09	.99
MPS2369	107	H6	15	.25	20-120	4/.59	.12	.10
2N2484	123AP	K3	60	.35	100-500	3/1.00	.29	.25
2N2906A	159	I3	60	.4	40-120	2/.59	.25	.21
PN2907	159	I6	60	.4	100-300	6/.69	.10	.09
2N2907A	159	I3	60	.4	100-300	3/1.00	.29	.25
MPQ2907 Quad	--	I7	60	.4	50 Min	1.19	1.09	.99
2N2925	123AP	A6	25	.3	150-300	4/.89	.19	.16
MJE2955T	183	D9	60	1.1	20-70	.59	.55	.49
2N3053	128	B4	40	1.4	25-150	2/.59	.27	.25
MJE3055T	182	M9	60V	50W	20hFE	.65	.59	.55
2N3055	181	M1	60V	115W	20-70	.59	.55	.49
2N3398	123AP	A6	25	--	55-800	4/.79	.19	.16
MPQ3467 Quad	--	R7	40	.5	20 Min	1.19	1.09	.99
2N3567	128	B8	40	.25	40-300	3/.49	.15	.13

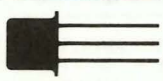
Part No.	Cross-Ref. to ECG	* Type Case	BVCEO Min.	VCE (Sat.) Max.	hFE Min-Max	PRICE 1-99	PRICE 100-999	PRICE 1000+
PN3569	128	B6	40	.25	100-300	4/.49	.10	.09
2N3638A	159	I6	25	.25	20-100	3/.49	.15	.13
MPS3640	159	P6	12	.2	30-120	6/1.09	.16	.14
2N3702	159	E6	40	.25	60-300	4/.49	.11	.09
2N3704	123AP	F6	30	.6	100-300	4/.49	.11	.09
2N3705	123AP	F6	30	.8	50-150	4/.49	.11	.09
2N3706	123AP	F6	40	1	30-600	4/.49	.11	.09
2N3724	235	G2	30	.25	60-150	.55	.49	.45
2N3725	128	G2	50	.25	60-150	.75	.69	.59
2N3772	181	M1	150W	30A	15-60	.89	.79	.69
2N3823	133	L5	FET	30V	4-20	.79	.69	.59
2N3903	123AP	A6	60	.3	50-150	4/.49	.11	.09
2N3904	123AP	A6	40	.3	100-300	4/.49	.11	.09
2N3905	159	E6	40	.25	50-150	4/.49	.11	.09
2N3906	159	E6	40	.25	100-300	4/.49	.11	.09
2N4013	123AP	G3	30	.25	30-150	.55	.49	.45
2N4123	123AP	A6	30	.3	50-150	4/.55	.12	.10
2N4124**	123AP	A6	25	.3	120-360	4/.55	.12	.10
2N4125**	159	E6	30	.4	50-100	4/.55	.12	.10
2N4400	123AP	F6	40	.4	50-150	4/.49	.11	.09
2N4401	123AP	F6	40	.4	100-300	4/.49	.11	.09
2N4402	159AP	I6	40	.4	50-150	4/.49	.11	.09
2N4403	159AP	I6	40	.4	50-150	4/.49	.11	.09
2N4409	194	K6	50	.2	60-400	4/.49	.11	.09
2N5086	159	J6	50	.3	150-500	4/.49	.11	.09
2N5087	159	J6	50	.3	250-800	4/.89	.19	.17
2N5088	123AP	K6	30	.5	300-900	4/.69	.16	.14
2N5089	123AP	K6	35	.5	400-1200	4/.69	.16	.14
2N5129	128	A6	12	.25	20-250	4/.55	.12	.10
PN5134	123AP	H6	10	.25	20-150	4/.55	.12	.10
2N5139	193	E8	20	.5	40-350	4/.55	.12	.10
2N5210	123	K6	50	.7	200-600	4/.65	.14	.13
2N5771	194	P6	4.5	.18	50-120	.59	.55	.49
2N5951	312	L6	FET	30V	360-500	.39	.35	.29
40409	128	M2	90V	3W	--	1.39	1.25	1.09
40410	129	D2	90V	3W	--	1.39	1.25	1.09
40673	222	L5	MOS FET			1.19	.99	.89

**CUT AND FORMED LEADS

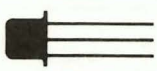
*TYPE / CASE CODE

A	NPN General Purpose Amp and Switch to 100mA
B	NPN Medium Power Amp and Switch
C	NPN General Purpose High Frequency
D	PNP Power Transistor
E	PNP General Purpose Amp and Switch to 100mA
F	NPN General Purpose Amp and Switch to 500mA
G	Switch to 1 Amp
H	NPN Saturated Switch to 100mA
I	PNP General Purpose amp and Switch to 500mA
J	PNP Low Level — High Gain 50-100mA
K	NPN Low Noise — Low Level — High Gain to 100mA
L	Field Effect Transistors (N Channel)
M	NPN Power Transistor
N	NPN Power Darlington
O	PNP Power Darlington
P	PNP Saturated Switch to 100mA
Q	PNP Silicon Audio
R	PNP Silicon Memory Driver

1. . . . . TO-3 CASE

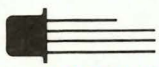


2. . . . . TO-5 CASE



3. . . . TO-18 CASE

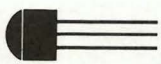
4. . . . . TO-39 CASE



5. . . . . TO-72 CASE

6. . . . TO-92 CASE

7. . . . . 14-PIN DIP



8. . . . TO-106 CASE

9. . . . TO-220 CASE

CARBON FILM RESISTORS

STANDARD ¼ WATT RESISTANCE VALUES 5%

Part No./Ohms	Part No./Ohms	Part No./Ohms	Part No./Ohms	Part No./Ohms	Part No./Ohms	Part No./Ohms	Part No./Ohms	Part No./Ohms	Part No./Ohms
R2.2	R11	R51	R240	R1.1K	R5.1K	R24K	R110K	R510K	R2.4M
R2.4	R12	R56	R270	R1.2K	R5.6K	R27K	R120K	R560K	R2.7M
R2.7	R13	R62	R300	R1.3K	R6.2K	R30K	R130K	R620K	R3.0M
R3.0	R15	R68	R330	R1.5K	R6.8K	R33K	R150K	R680K	R3.3M
R3.3	R16	R75	R360	R1.6K	R7.5K	R36K	R160K	R750K	R3.6M
R3.6	R18	R82	R390	R1.8K	R8.2K	R39K	R180K	R820K	R3.9M
R3.9	R20	R91	R430	R2.0K	R9.1K	R43K	R200K	R910K	R4.3M
R4.3	R22	R100	R470	R2.2K	R10K	R47K	R220K	R1.0M	R4.7M
R4.7	R24	R110	R510	R2.4K	R11K	R51K	R240K	R1.1M	R5.1M
R5.1	R27	R120	R560	R2.7K	R12K	R56K	R270K	R1.2M	R5.6M
R5.6	R30	R130	R620	R3.0K	R13K	R62K	R300K	R1.3M	R6.2M
R6.2	R33	R150	R680	R3.3K	R15K	R68K	R330K	R1.5M	R6.8M
R6.8	R36	R160	R750	R3.6K	R16K	R75K	R360K	R1.6M	R7.5M
R7.5	R39	R180	R820	R3.9K	R18K	R82K	R390K	R1.8M	R8.2M
R8.2	R43	R200	R910	R4.3K	R20K	R91K	R430K	R2.0M	R9.1M
R9.1	R47	R220	R1.0K	R4.7K	R22K	R100K	R470K	R2.2M	R10M
R10									

MUST BE ORDERED IN INCREMENTS OF 5 EACH PER VALUE

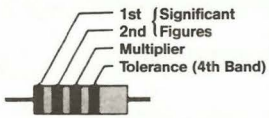
		PRICING		
5 PIECES PER VALUE	**ALL VALUES IN STRIPS OF 5**	5-495 PCS.	500-995 PCS.	1000+ PCS.
		$.06 ea.	$.05 ea.	$.04 ea.
100 PIECES PER VALUE	**ALL VALUES IN BAGS OF 100**	100-2400 PCS.	2500-4900 PCS.	5000+ PCS.
		$2.50C	$2.00C	$1.80C
1000 PIECES PER VALUE	**ALL VALUES IN BOXES OF 1000**	1000-9000 PCS.	10,000-24,000 PCS.	25,000+ PCS.
		$11.95M	$10.95M	$9.95M

— VALUES MAY BE COMBINED (IN EACH SECTION ONLY) FOR BEST QUANTITY PRICE —

RESISTOR ASSORTMENTS 50-Piece — ¼ Watt — 5%

Part No.			Price
ASST. 1	5 each	10 OHM — 12 OHM — 15 OHM — 18 OHM — 22 OHM 27 OHM — 33 OHM — 39 OHM — 47 OHM — 56 OHM	$1.95
ASST. 2	5 each	68 OHM — 82 OHM — 100 OHM — 120 OHM — 150 OHM 180 OHM — 220 OHM — 270 OHM — 330 OHM — 390 OHM	$1.95
ASST. 3	5 each	470 OHM — 560 OHM — 680 OHM — 820 OHM — 1K 1.2K — 1.5K — 1.8K — 2.2K — 2.7K	$1.95
ASST. 4	5 each	3.3K — 3.9K — 4.7K — 5.6K — 6.8K 8.2K — 10K — 12K — 15K — 18K	$1.95
ASST. 5	5 each	22K — 27K — 33K — 39K — 47K 56K — 68K — 82K — 100K — 120K	$1.95
ASST. 6	5 each	150K — 180K — 220K — 270K — 330K 390K — 470K — 560K — 680K — 820K	$1.95
ASST. 7	5 each	1M — 1.2M — 1.5M — 1.8M — 2.2M 2.7M — 3.3M — 3.9M — 4.7M — 5.6M	$1.95
ASST. 8R	**350 pcs.**	Includes Assortments 1-7 shown above (Each Assortment is individually packaged) **(Regular Price $13.65 — SAVE $3.70)**	**$9.95**

STANDARD RESISTOR COLOR CODE



COLOR BAND SYSTEM

1st & 2nd Band		3rd Band
0	Black	
1	Brown	
2	Red	
3	Orange	
4	Yellow	
5	Green	
6	Blue	
7	Violet	
8	Grey	
9	White	

MULTIPLIER	
Color	Multiplier
Black	1
Brown	10
Red	100
Orange	1,000
Yellow	10,000
Green	100,000
Blue	1,000,000
Silver	0.01
Gold	0.1

Tolerance on 4th Band

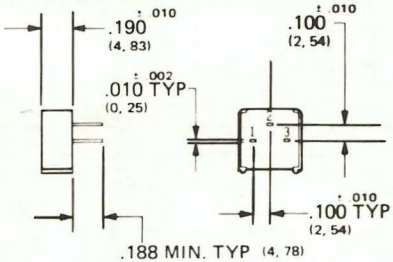
No Band, ± 20%
Silver, ± 10%
Gold, ± 5%

POTENTIOMETERS

½ WATT LINEAR TAPER — Single Turn Cermet

- 1/2 Watt @ 70°C (−55°C to +125°) ± 10% Tolerance
- PC Pins: .100" grid (2.54mm) TO-5 Grid • ⅜" square
- Sealed to guard against contaminants

TOP ADJUSTMENT



Equivalent to:

Allen Bradley	E2A
Beckman	72PR
Bourns	3386P
Spectrol	63P
VRN	760-10
VRN	780-12P
Weston	840P

STANDARD RESISTANCE VALUES
— Please Specify Values When Ordering —
50Ω 100Ω 500Ω 1K 2K 5K 10K
20K 50K 100K 200K 500K 1 Meg

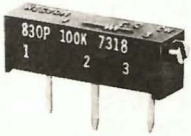
PRICING

PART NO.	RESISTANCES (OHMS)	1-24	25-99	100+
63P-(value)	50Ω — 1 Meg	$.89	$.79	$.69

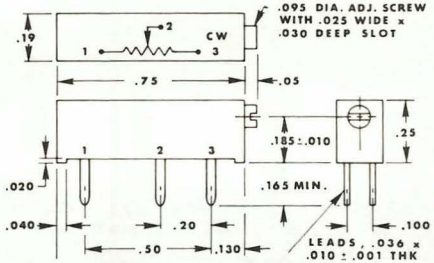
— Values May Be Combined for Best Quantity Pricing —

¾ WATT LINEAR TAPER — 15 Turn Cermet

- 3/4 Watt @ 70°C (−55°C to +125°) ± 10% Tolerance
- PC Pins: .100" grid (2.54mm) • ¾" Rectangular
- Sealed to guard against contaminants



SIDE ADJUSTMENT



Equivalent to:

Allen Bradley	RT5L
Amphenol	6034P
Beckman	89PR
Bourns	3006P
Spectrol	43P
VRN	961-20
Weston	830P

STANDARD RESISTANCE VALUES
— Please Specify Values When Ordering —
50Ω 100Ω 500Ω 1K 2K 5K 10K
20K 50K 100K 200K 500K 1 Meg

PRICING

PART NO.	RESISTANCES (OHMS)	1-24	25-99	100+
43P-(value)	50Ω — 1 Meg	$.99	$.89	$.79

—Values May Be Combined for Best Quantity Pricing —

2 Watt Linear Taper Potentiometer

2W @ 70°C Ambient ± 10% Tolerance

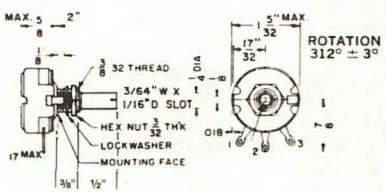
- Meets MIL-R-94 (−55°C to +120°C) • ½" Slotted Shaft

Equivalent to:

Clarostat	53C3
OHMITE	CMU

PRICING

PART NO.	MILITARY NO.	OHMS	1-24	25-99	100+
CMU1021	RV4N-AYSD-102A	1K	$3.25	$2.95	$2.75
CMU5021	RV4N-AYSD-502A	5K	$3.25	$2.95	$2.75
CMU1031	RV4N-AYSD-103A	10K	$3.25	$2.95	$2.75
CMU2531	RV4N-AYSD-253A	25K	$3.25	$2.95	$2.75
CMU5031	RV4N-AYSD-503A	50K	$3.25	$2.95	$2.75
CMU1041	RV4N-AYSD-104A	100K	$3.25	$2.95	$2.75
CMU1052	RV4N-AYSD-105A	1MEG	$3.25	$2.95	$2.75



Round Slotted Shaft (½" Long from Bushing) for ¼" Maximum Panel Thickness

— Values May Be Combined for Best Quantity Pricing —

.20 WATT LINEAR TAPER

- Single Turn • Vertical Mounting • 200V Rating
- ± 20% Tolerance • Rotation Angle 260° ± 10°

STANDARD RESISTANCE VALUES
— Please Specify Values When Ordering —
100Ω 500Ω 1K 2K 5K 10K
20K 50K 100K 200K 1Meg

PRICING

Part No.	Resistances (Ohms)	1-24	25-99	100+
TR11-(value)	100Ω — 1 Meg	$.29	$.27	$.25

BOURNS ¼ WATT LINEAR TAPER

- Single Turn • Top Adjustment • ±20% Tolerance
- Pin Spacing .172 ± .01 (2 places) .344 overall

STANDARD RESISTANCE VALUES
— Please Specify Values When Ordering —
500Ω 1K 2.5K 5K 10K 25K
50K 100K 250K 500K 5 Meg

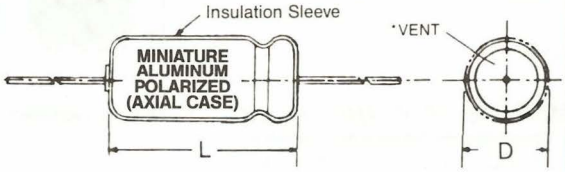
PRICING

Part No.	Resistances (Ohms)	1-24	25-99	100+
3355-(value)	500Ω — 5 Meg	$.35	$.29	$.25

GB174	25 each Assorted Values.	$3.00

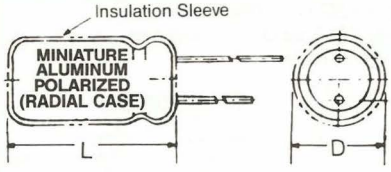
CAPACITORS

Axial Electrolytic



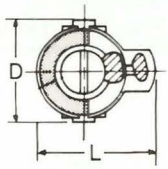
A Series

Radial Electrolytic



R Series

Ceramic Trimmer



TC Series

AXIAL LEAD ELECTROLYTIC

PART NO.	Capacitance MFD	Working DC Voltage	Surge DC Voltage	DIMENSIONS (APPROX.) L	DIMENSIONS (APPROX.) D	PRICE 1-99	PRICE 100-999	PRICE 1000+
A.47/50	.47*	50	63	.492"	.205"	.14	.12	.10
A1/50	1*	50	63	.488"	.205"	.14	.12	.10
A3.3/50	3.3*	50	63	.488"	.205"	.14	.12	.10
A4.7/50	4.7*	50	63	.492"	.205"	.14	.12	.10
A10/50	10*	50	63	.622"	.323"	.14	.12	.10
A22/50	22*	50	63	.630"	.236"	.18	.15	.12
A47/50	47*	50	63	.630"	.315"	.21	.18	.14
A100/16	100	16	20	.750"	.315"	.21	.18	.15
A100/50	100*	50	63	.787"	.375"	.24	.21	.18
A220/50	220*	50	63	.750"	.415"	.39	.33	.26
A470/16	470	16	20	.787"	.394"	.35	.29	.24
A470/25	470	25	32	.984"	.394"	.39	.33	.26
A470/50	470*	50	63	.984"	.512"	.49	.41	.32
A1000/16	1000	16	20	1.563"	.512"	.35	.29	.24
A1000/25	1000*	25	32	.984"	.514"	.49	.41	.32
A2200/16	2200*	16	20	1.594"	.512"	.65	.49	.44

AXIAL ELECTROLYTIC CAPACITOR ASSORTMENT – 60 PIECES
(5 each of 12 values as marked [*] above)
REGULAR PRICE $16.75 – *SAVE $4.80* (29% SAVINGS). . . . . Part No. AXIAL 60 – $11.95

RADIAL LEAD ELECTROLYTIC

R.47/50	.47**	50	63	.512"	.187"	.12	.10	.08
R1/50	1**	50	63	.433"	.187"	.12	.10	.08
R4.7/50	4.7**	50	63	.433"	.187"	.12	.10	.08
R10/50	10**	50	63	.453"	.219"	.12	.10	.08
R47/50	47**	50	63	.438"	.313"	.14	.12	.10
R100/50	100**	50	63	.688"	.406"	.18	.15	.12
R220/16	220**	16	20	.500"	.375"	.18	.15	.12
R220/25	220	25	32	.750"	.500"	.18	.15	.12
R470/25	470**	25	32	.750"	.500"	.35	.29	.24
R1000/16	1000**	16	20	.750"	.500"	.35	.29	.24
R1500/25	1500	25	32	.984"	.630"	.79	.65	.49
R2200/25	2200	25	32	1.313"	.625"	1.25	1.15	.89
R3300/25	3300	25	32	1.375"	.406"	1.39	1.25	.99
R6800/16	6800	16	20	1.620"	.866"	1.49	1.39	1.09

RADIAL ELECTROLYTIC CAPACITOR ASSORTMENT – 45 PIECES
(5 each of 9 values as marked [**] above)
REGULAR PRICE $8.40 – *SAVE $2.45* (29% SAVINGS). . . . . Part No. RADIAL 45 – $5.95

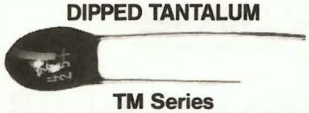
CERAMIC TRIMMER

TC 2-8	2- 8pf	250	500	.375"	.250"	.79	.65	.49
TC 3-12	3-12pf	250	500	.375"	.250"	.79	.65	.49
TC 3-23	3-23pf	250	500	.375"	.250"	.79	.65	.49
TC 4-34	4-34pf	250	500	.375"	.250"	.79	.65	.49
TC 6-70	6-70pf	250	500	.375"	.250"	.79	.65	.49

TRIMMER CAPACITOR ASSORTMENT – 10 PIECES
(2 each of 5 values as listed above)
REGULAR PRICE $7.90 – *SAVE $1.95* (25% SAVINGS). . . . . Part No. TRIMMER-10 – $5.95

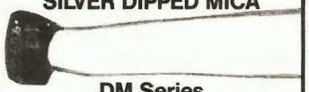
CAPACITORS

DIPPED TANTALUM



TM Series

SILVER DIPPED MICA

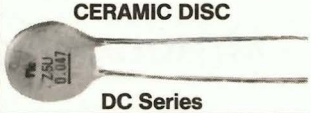


DM Series

POLYESTER FILM MYLAR

MY Series

CERAMIC DISC



DC Series

DIPPED TANTALUM CAPACITORS

±20% Dipped (Solid) Polarized

Part No.	Value	Volts	PRICE 1-99	100-999	1000+
*TM .1/35	.1µf	35V	.18	.15	.12
*TM .15/35	.15µf	35V	.18	.15	.12
*TM .22/35	.22µf	35V	.18	.15	.12
*TM .33/35	.33µf	35V	.18	.15	.12
*TM .47/35	.47µf	35V	.18	.15	.12
*TM .68/35	.68µf	35V	.18	.15	.12
*TM 1/35	1µf	35V	.18	.15	.12
*TM 1.5/35	1.5µf	35V	.18	.15	.12
*TM 2.2/35	2.2µf	35V	.24	.20	.16
TM 3.3/25	3.3µf	25V	.24	.20	.16
*TM 3.3/35	3.3µf	35V	.29	.24	.19
TM 4.7/25	4.7µf	25V	.35	.29	.24
*TM 4.7/35	4.7µf	35V	.49	.41	.32
*TM 6.8/35	6.8µf	35V	.49	.41	.32
TM 10/25	10µf	25V	.51	.43	.35
*TM 10/35	10µf	35V	.75	.65	.55
TM 15/25	15µf	25V	.79	.69	.59
TM 22/6	22µf	6V	.35	.30	.25
TM 33/25	33µf	25V	1.19	1.05	.89
TM 47/25	47µf	25V	2.39	2.05	1.79
TM 100/6	100µf	6V	1.09	.95	.79

TANTALUM CAPACITOR ASSORTMENT – 65 PIECES
(5 each of 13 values as marked [*] above)
Reg. Price $18.50 - ***SAVE $4.55*** #**TANT-65 $13.95**

MYLAR CAPACITORS

±10% Polyester Film

Part No.	Value	Volts	PRICE 1-99	100-999	1000+
MY.001/100	.001µf	100V	.08	.06	.04
MY.0015/100	.0015µf	100V	.08	.06	.04
MY.0022/100	.0022µf	100V	.08	.06	.04
MY.0033/100	.0033µf	100V	.08	.06	.04
MY.0047/100	.0047µf	100V	.08	.06	.04
MY.01/100	.01µf	100V	.09	.07	.05
MY.022/100	.022µf	100V	.09	.07	.05
MY.033/100	.033µf	100V	.11	.08	.06
MY.047/100	.047µf	100V	.11	.08	.06
MY.1/100	.1µf	100V	.14	.11	.07
MY.22/100	.22µf	100V	.24	.18	.12
MY.33/100	.33µf	100V	.32	.24	.16
MY.47/100	.47µf	100V	.36	.27	.18

MYLAR CAPACITOR ASSORTMENT – 130 PIECES
(10 each of 13 values as listed above) Individually Packaged
Reg. Price $18.60 - ***SAVE $4.65*** #**MYLAR-130 $13.95**

CAPACITOR CODE

1 0 4 = 100000 . pf or .1 µfd

(move decimal 6 places to left to convert to microfarads)

- 4 — Multiplier (add zeros to get value in picofarads)
- 0 — 2nd Significant Figure
- 1 — 1st Significant Figure

SILVER DIPPED MICA CAPACITORS

DM15 Series ±5% Tolerance (CMO5 Mil. Style)

Part No.	Value	Volts	PRICE 1-99	100-999	1000+
*DM15-100J	10pf	500V	.25	.19	.13
*DM15-220J	22pf	500V	.25	.19	.13
DM15-270J	27pf	500V	.25	.19	.13
*DM15-330J	33pf	500V	.25	.19	.13
*DM15-470J	47pf	500V	.25	.19	.13
DM15-560J	56pf	500V	.25	.19	.13
*DM15-680J	68pf	500V	.29	.23	.15
DM15-820J	82pf	500V	.29	.23	.15
*DM15-101J	100pf	500V	.29	.23	.15
DM15-121J	120pf	500V	.39	.29	.19
DM15-181J	180pf	500V	.43	.34	.24
*DM15-221J	220pf	500V	.39	.29	.19
DM15-271J	270pf	500V	.45	.35	.25
DM15-331J	330pf	500V	.49	.39	.29
*DM15-471J	470pf	500V	.59	.45	.31
DM15-561J	560pf	300V	.61	.53	.35
*DM15-681J	680pf	300V	.65	.59	.43
DM15-821J	820pf	300V	.69	.63	.45
*DM15-102J	1000pf	100V	.75	.67	.49

MICA CAPACITOR ASSORTMENT – 50 PIECES
(5 ea. of 10 values as marked [*] above) Individually Packaged
Reg. Price $19.80 - ***SAVE $4.85*** #**MICA-50 $14.95**

MONOLYTHIC CAPACITOR

±20% Ceramic Epoxy Dipped

MD .1/50	.1µf	50V	.11	.08	.06

DISC CAPACITORS

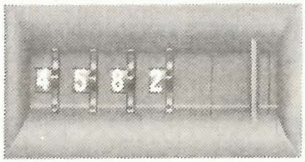
+80 - 20% CERAMIC

Part No.	Value	Volts	PRICE 1-99	100-999	1000+
DC 10/50	10pf	50V	.06	.05	.04
DC 22/50	22pf	50V	.06	.05	.04
DC 39/50	39pf	50V	.06	.05	.04
DC 47/50	47pf	50V	.06	.05	.04
DC 68/50	68pf	50V	.06	.05	.04
DC 100/50	100pf	50V	.06	.05	.04
DC 220/50	220pf	50V	.06	.05	.04
DC 330/50	330pf	50V	.06	.05	.04
DC 470/50	470pf	50V	.06	.05	.04
DC .001/50	.001µf	50V	.06	.05	.04
DC .0047/50	.0047µf	50V	.06	.05	.04
DC .01/50	.01µf	50V	.06	.05	.04
DC .022/50	.022µf	50V	.07	.06	.05
DC .033/50	.033µf	50V	.07	.06	.05
DC .047/50	.047µf	50V	.08	.07	.06
DC .1/50	.1µf	50V	.15	.12	.09

DISC CAPACITOR ASSORTMENT – 160 PIECES
(10 each of 16 values as listed above) Individually Packaged
Reg. Price $10.90 - ***SAVE $2.95*** #**DISC-160 $7.95**

SWITCHES AND RELAYS

Unimax Switch®



Thumbwheel Switches

SNAP TOGETHER — NO HARDWARE

Front Mount Switch Accessories

SERIES SF Front Mount Assembly

SF-EP SF-21 SF-12 SF-HB SF-BB SF-DP SF-EP

Part No.	Description	1-9	10+
SF-EP	End Plates (pair)	$1.19	$.99
SF-DP	Divider Plate (each)	$ .69	$.59
SF-BB	Blank Body (each)	$ .69	$.59
SF-HB	Half Body (each)	$ .69	$.59

Thumbwheel Switches

SF = Front Mount SR = Rear Mount

Part No.	Description	1-9	10+
SF-12	Single Pole 10 Position Decimal	$3.95	$3.49
SR-12	Single Pole 10 Position Decimal	$3.95	$3.49
SF-21	10 Position BCD only	$3.95	$3.49
SR-21	10 Position BCD only	$3.95	$3.49

SF Hexadecimal Thumbwheel Switches

Front Mount • Single Pole

Part No.	Description	Dial	1-9	10+
SF-52	16 Position Decimal	0-9, A-F	$5.95	$5.29
SF-53*	16 Position Binary	0-9, A-F	$5.95	$5.29
SF-54	16 Position Binary	0-9, A-F	$5.95	$5.29

*Normally closed — all other switches: normally open

Rear Mount Switch Accessories

SERIES SR Rear Mount Assembly

SR-EP SR-BB SR-DP SR-HB SR-12 SR-21 SR-EP

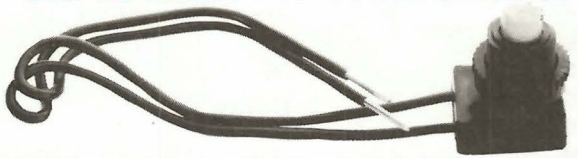
Part No.	Description	1-9	10+
SR-EP	End Plates (pair)	$.99	$.79
SR-DP	Divider Plate (each)	$.59	$.49
SR-BB	Blank Body (each)	$.59	$.49
SR-HB	Half Body (each)	$.59	$.49

Specifications for Switches and Accessories

Contact Rating. . . . . Switching: 50mA @ 28VAC
Carry Only: 2A @ 115VAC
Character Height. . . . 10 position .190" — 16 position .120"
Switch Height. . . . . SF 1.3" — SR 1.204"
PC Board. . . . . FR-4 .787mm thick
50 millionths gold over nickel, 2 oz. laminate

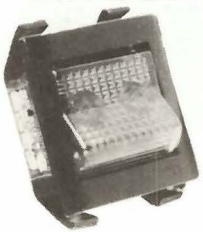
Contacts. . . . . Gold-plated beryllium-copper
Connection. . . . . Break Before Make
Panel Thickness Required. . . . . 0.125 ± 0.010"
Switch, Divider or Body Spacer. . . . . 0.315 ± 0.002"
End Plate or ½ Body Spacer. . . . . 0.158 ± 0.002"

Jud-Co Plastic Pushbutton Switches



•18 AWG stranded wire with 5" leads • 3/8-27 thread • .50"W x .60"H x .875"D • 10 Amp @ 14V • 1 Amp @ 110V

Part No.	Description	Button Color	1-9	10-99	100+
J188-1	Push On/Push Off	White	$.59	$.49	$.39
J188-2	Normally Open	Red	$.59	$.49	$.39
J188-3	Normally Closed	Black	$.59	$.49	$.39



Arrowhart Miniature Snap-In Lighted and Non-Lighted AC Switches

• UL & CSA approved • DPST • ON-OFF • Rocker Switch • Black base • Quick connect solder lug terminals • 16 Amp @ 125/250VAC

Part No.	Model No.	Lighted	Color	Quantity In Stock	1-9	10+
SW147	2600R11E	Yes	Red	8,000	$1.95	$1.49
SW148	2600M11E	No	Flat Black	9,700	$ .99	$ .75
SW149	260011E	No	Gloss Black	20,500	$ .89	$ .65

AROMAT RELAYS

- UL and CSA approved • Subminiature DIP
- Compact size • Flux resistant
- High sensitivity • 16-pin DIP terminal
- Size: 1"L x ¾"H x ½"D (approx.)

Part No.	DC Voltage	Res. (Ohms)	Nom. Power	Contacts Amps	Contacts Arrangement	Breakdown Voltage	1-9	10+
HB2-5	5V	43.4	576	2	DPDT	500Vrms	$3.95	$3.49
HB2-12	12V	250	576	2	DPDT	500Vrms	$3.95	$3.49
DS2-5	5V	62.5	400	2	DPDT	1000Vrms	$4.95	$4.49

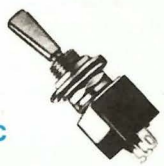
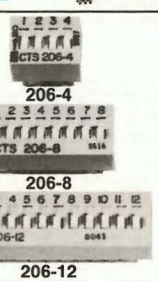
STANDEX RELAYS

SPST
NORMALLY CLOSED

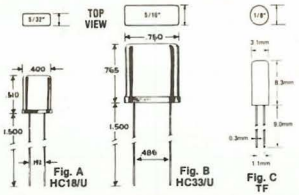
Part No.	DC Voltage	Res. (Ohms)	Nom. Power	Contacts Amps	Contacts Arrangement	1-9	10+
RRJ-10317	12V	750	192	16mA	SPST	$.35	$.29

SWITCHES

• TOGGLE • ROCKER • PUSHBUTTON • SLIDE • ROTARY •

TYPE/RATING	PART NO.	STYLE	MOUNTING HOLE DIM.	CIRCUITRY ON-ON = 2 POS. ON-OFF-ON = 3 POS.	PRICE 1-9	10-99	100+
SUBMINIATURE TOGGLE 3 AMP @ 125VAC 	JMT121	SPDT	1/4"	on-off-on	1.25	1.15	1.05
	JMT123	SPDT	1/4"	on-on	1.19	1.09	.99
	JMT221	DPDT	1/4"	on-off-on	1.49	1.35	1.19
	JMT223	DPDT	1/4"	on-on	1.45	1.29	1.15
PRINTED CIRCUIT BOARD TOGGLE 3 AMP @ 125VAC 	MPC121	SPDT	1/4"	on-off-on	1.19	1.09	.99
	MPC123	SPDT	1/4"	on-on	1.09	.99	.89
	MPC221	DPDT	1/4"	on-off-on	1.95	1.69	1.49
	MPC223	DPDT	1/4"	on-on	1.39	1.19	1.05
FLAT LEVER TOGGLE 3 AMP @ 125VAC 	LFH121	SPDT	1/4"	on-off-on	3.59	3.25	2.95
	LFH123	SPDT	1/4"	on-on	2.25	1.95	1.75
	LFH221	DPDT	1/4"	on-off-on	2.95	2.69	2.39
	LFH223	DPDT	1/4"	on-on	2.85	2.55	2.29
	7301P3	3PDT	1/4"	on-off-on	9.95	8.95	8.29
ROCKER SWITCH 10 AMP @ 120VAC 	RS026	SPDT	1"L x 7/8"W	on-on	.99	.79	.65
PUSHBUTTON 6 AMP @ 125VAC 	PB123	Maintained SPDT	1/4"	on-on	3.69	3.29	2.95
	PB126	Momentary SPDT	1/4"	on-on	3.79	3.39	3.09
MINIATURE SLIDE 	SL716	DPDT	5/8"L x 7/16"W	on-on	.39	.35	.29
SUBMINIATURE SLIDE 	MSL34	SPDT	1/2"L x 3/16"W	on-on	.49	.45	.39
DIPSWITCH 100mA @ 50VDC  206-4 206-8 206-12	206-4	SPST	8-pin DIP	4 switch	1.09	.99	.89
	206-5	SPST	14-pin DIP	5 switch	.99	.89	.79
	206-6	SPST	14-pin DIP	6 switch	1.05	.95	.85
	206-7	SPST	14-pin DIP	7 switch	1.25	1.15	1.05
	206-8	SPST	16-pin DIP	8 switch	1.29	1.19	1.09
	206-10	SPST	20-pin DIP	10 switch	1.49	1.29	1.19
	206-12	SPST	24-pin DIP	12 switch	1.69	1.49	1.29
ROTARY 0.3 AMP @ 125VAC NON-SHORTING BREAK BEFORE MAKE 	MRS260	Double pole 6 position	3/8"	2 pole 6 pos. single section	1.19	1.05	.95
	MRS304	Triple pole 4 position	3/8"	3 pole 4 pos. single section	1.25	1.09	.99
	MRS112	Single pole 12 position	3/8"	1 pole 12 pos. single section	1.15	.99	.89
MINIATURE PUSHBUTTON 1 AMP @ 125VAC 	MS102	Momentary SPST	1/4"	normally open	.39	.35	.29
	MS103	Momentary SPST	1/4"	normally closed	.45	.39	.35
COLORED CAPS FOR MS102-103 SWITCHES (CEMENT ON) 	MSR-CAP	Red	1/4"	————	.19	.17	.15
	MSB-CAP	Black	1/4"	————	.19	.17	.15

CRYSTALS



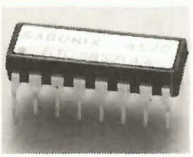
"GENERAL PURPOSE" CALIBRATION AT AMBIENT TEMPERATURE (25°) IS WITHIN ±.005% OF SPECIFIED FREQUENCY. *In the Case/Style column below, we have listed the case and style (series or parallel resonance) of the crystal. If it is parallel resonance, we have listed the load capacitance. For example:

CY1A BP13 = HC/33U (Case) Parallel (Resonance) 13pF (Load Capacitance)

Style: S=Series P=Parallel

Part No.	Frequency	Use With:	*Case/ Style	Price 1-9	Price 10+
CY1A	1.000MHz	F8, Z8, Z80, 1802, MC6800, MC6860	BP13	3.95	3.49
CY1.84	1.8432MHz	MOT MC14411	BP13	2.49	1.95
CY2A	2.0000MHz	CDP1802, 6500/6800 Series, MC14411	BP20	2.49	1.95
CY2.01	2.010MHz	GI AY-3-8500-1 (¼" Leads)	BS	1.95	1.49
CY2.45	2.4576MHz	4702, IM6100C, F8	BS	2.49	1.95
CY2.50	2.500MHz	Zilog Z80, IM6100, 2650/A/A-1	BS	2.49	1.95
CY3.27	3.2768MHz	Intersil 7205, IM6100C	AP15	1.19	.89
CY3.57	3.579545MHz	MM5369, IM6102, 6801, 6803, 7206 TV Color Burst Crystal	BP18	1.19	.89
CY3.68	3.6864MHz	MOT MC14411	AS	1.19	.89
CY4A	4.0000MHz	Z80A, 4040, 4201, Z8001/8002, 4004, Intersil 6100, 8035, 8048	AP20	1.19	.89
CY4.19	4.194304MHz	ICM 7038A, 7213, 7049	AP12	1.19	.89
CY4.91	4.9152MHz	Z80, Z80A, COM5026, 5046	AS	1.19	.89
CY5A	5.000MHz	Z80, MCP1600, 1802, 1803	AP20	1.19	.89
CY5.068	5.0688MHz	COM5016/BR1941, 5016T	AS	1.19	.89
CY5.24	5.24288MHz	Intersil 7207	AP20	1.19	.89
CY6A	6.000MHz	CP1600, 8035, 8041, 8048, 8049, 8747, 8749, MCS48, Z80B	AS	1.19	.89
CY6.14	6.144MHz	CP1600, P8085, 8748	AP30	1.19	.89
CY6.55	6.5536MHz	Intersil 7207, 7045, 7034	AP20	1.19	.89
CY8A	8.000MHz	CP1600, IM6100C, MC68000L8, TMS9980, 8X300, MC6875	AS	1.19	.89
CY10A	10.000MHz	TTL Micro Logic, 8086, 8284, CP1600A	AS	1.19	.89
CY12	12.000MHz	8086, 8202, 8224, 8284, 8350	AS	1.19	.89
CY14.31	14.31818MHz	4X Color Burst, 8080, 8224	AS	1.19	.89
CY16A	16.000MHz	8080, 8008, 8224, 8284	AS	1.19	.89
CY18A	18.000MHz	Intel 8080A, 8008, 8224	AS	1.19	.89
CY18.43	18.432MHz	8080A, 8008, 8224, AM9080	AS	1.19	.89
CY19.66	19.6608MHz	8080A, 8008, 8224	AS	1.49	1.19
CY20A	20.000MHz	Intel 8080/8008, 8224	AS	1.49	1.19
CY22.11	22.1184MHz	AM9080, UCOM80, 8080A, TMS8080	AS	1.49	1.19
CY32A	32.000MHz	8080, 8008, 8224, AM9080, TMS8080	AS	1.49	1.19
NTF32.38	32.768KHz	Watches, MM58167AN	CP10.5	1.19	.89
CY36A	36.000MHz	8080, 8008, 8224, 8080A	AS	1.49	1.19
CY48A	48.000MHz	TMS9900, 9904, SML362	AS	1.49	1.19
SRX1504	49.435MHz	LM1872N	AP24	1.49	1.19
SRX1505	49.890MHz	LM1871N	AS	1.49	1.19

REAL TIME CLOCK MODULE

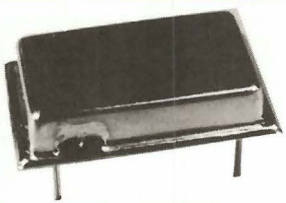


A Real Time Clock incorporating an on board quartz crystal in a single 16-pin DIP package, eliminating the need for external crystal, resistors and capacitors.

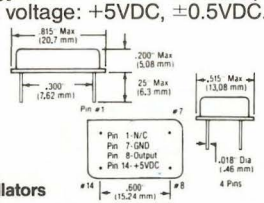
• Built-in 32.768KHz quartz crystal • Low power standby operation • Addressable counter start, stop, and reset function • 12- or 24-hour format • Automatic leap year selection • Microprocessor compatible 4-bit data bus • Standard 16-pin DIP package • MSM58321RS CMOS Real Time Clock/Calendar ($6.95) is pin to pin compatible but requires an external 32.768KHz quartz crystal.

	Price 1-9	Price 10+
RTCM 32.768.	**$7.95**	**$6.95**

CRYSTAL CLOCK OSCILLATORS — TTL & CMOS



A single component oscillator utilizing a combination of thick film hybrid and quartz crystal technology. Suitable for use in computer and digital based equipment. Frequency stability ±100ppm. Input voltage: +5VDC, ±0.5VDC.



Consumes 50% less power than regular TTL Crystal Clock Oscillators

CMOS Crystal Clock Oscillators

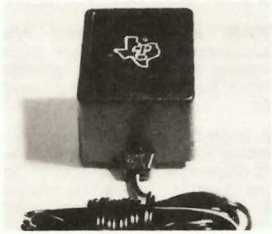
Part Number	Frequency	Current	1-9	10+
CMOS 1.000	1.000 MHz	10mA	4.95	4.49
CMOS 2.000	2.000 MHz	10mA	4.95	4.49
CMOS 4.000	4.000 MHz	10mA	4.95	4.49
CMOS 8.000	8.000 MHz	10mA	4.95	4.49
CMOS 10.000	10.000 MHz	10mA	4.95	4.49
CMOS 12.000	12.000 MHz	10mA	4.95	4.49
CMOS 32.768	32.768 KHz	100μA	4.95	4.49

TTL Crystal Clock Oscillators

Part Number	Frequency	Current	Price 1-9	Price 10+
OSC 1.000	1.0000 MHz	20mA	3.19	2.79
OSC 1.843	1.8432 MHz	20mA	3.19	2.79
OSC 2.000	2.0000 MHz	20mA	3.19	2.79
OSC 4.000	4.0000 MHz	20mA	3.19	2.79
OSC 8.000	8.0000 MHz	20mA	3.19	2.79
OSC 10.000	10.0000 MHz	20mA	3.19	2.79
OSC 16.000	16.0000 MHz	20mA	3.19	2.79
OSC 18.432	18.4320 MHz	20mA	3.19	2.79
OSC 19.660	19.6608 MHz	20mA	3.19	2.79
OSC 20.000	20.0000 MHz	20mA	3.19	2.79
OSC 32.000	32.0000 MHz	20mA	3.19	2.79
OSC 32.768	32.768 KHz	50μA	3.19	2.79

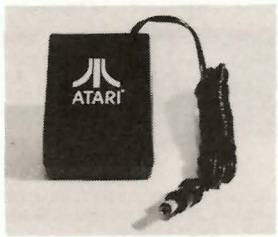
TRANSFORMERS, PLUGS, FUSES AND FUSE HOLDERS

12VAC @ 250mA



AC250. . . . . $2.95

9VAC @ 500mA



AC900. . . . . $2.49

8VDC @ 400mA

DC800. . . . . $1.49

9VDC @ 1 Amp

DC901. . . . . $4.49

AC Wall Transformers

Ideal for use with clocks, games, power supplies or any other type of AC application. UL Listed.

Part No.	Input	Output	1-9	10+
AC900	120V/60Hz	9VAC 500mA	$2.49	$1.95
AC934	120V/60Hz	9VAC 3.4 amp	$4.95	$4.49
AC250	120V/60Hz	12VAC 250mA	$2.95	$2.49
AC500	120V/60Hz	12VAC 500mA	$4.95	$4.49
AC1000	120V/60Hz	12VAC 1 amp	$5.49	$5.19
AC2000	120V/60Hz	12VAC 2 amp	$5.95	$5.49
AC2400	120V/60Hz	24VAC 1.2 amp	$3.95	$3.49

DC Wall Transformers

Ideal for use with clocks, games, power supplies or any other type of DC application. UL Listed.

Part No.	Input	Output	1-9	10+
DC512* (*Has Multiple Voltage Output)	120V/60Hz	+5VDC 900mA −5VDC 100mA +12VDC 300mA	$3.95	$3.49
DC600	120V/60Hz	6VDC 750mA	$2.49	$2.25
DC800	120V/60Hz	8VDC 400mA	$1.49	$1.29
DC9200	120V/60Hz	9VDC 200mA	$2.95	$2.49
DC900	120V/60Hz	9VDC 500mA	$3.95	$3.49
DC901	120V/60Hz	9VDC 1 amp	$4.49	$3.95
DC1200	120V/60Hz	10.5VDC 300mA	$3.95	$3.75
DC1212	120V/60Hz	12VDC 1.2A	$4.95	$4.75

PLUGS

Mono Plugs

DC Power Plugs

Part No.	Description	1-9	10+
PP095	2.5mm Mono Plug-2 Cond. Solder Terminals. . . .	$.39	$.29
PP102	3.5mm Mono Plug-2 Cond. Solder Terminals. . . .	$.45	$.35
PP049	2.1mm DC Power Plug, Solder Terminals.	$.49	$.39
PP109	2.5mm DC Power Plug, Solder Terminals.	$.55	$.45

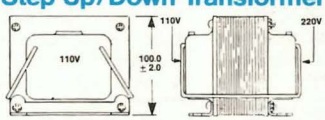
5-Way DC Voltage Adapter

With Universal Plug and 9V Battery Snap

- Selective voltages: 3, 4.5, 6, 7.5, 9, 12VDC • Polarity selection: (+) or (−) • 6' line from adapter to plugs • 6" line from adapter to battery snap • 120V/60Hz 300mA • UL approved

	1-9	10+
DC6912 . . .	$7.95	$7.49

Step Up/Down Transformer



- Allows safe and easy step-down from 220V to 110AC and step-up from 110V to 220AC • Portable (comes with carrying handles) • Rugged design • Rated @ 2.3A AC (250W)

	1-9	10+
STEP-X (4½ lbs.)	$19.95	$18.95

NEW! Power Transformers POWER-UP!

COLECO

- Primary: 115VAC @ 50/60Hz
- Four separate secondaries: (2) 8VAC @ 2A and (2) 14VAC @ 2A
- Size: 3⅜"L x 2⅝"D x 2¾"H
- Weight: 4 lbs.

	1-9	10+
AC814 *(6000 In Stock)*.	$3.95	$2.95

- Input: 117V/60Hz • Output: 12.6VCT @ 2 amps • 1500RMS test voltage • Mounting centers: 2¾" • Size: 3¼"L x 2"H x 2⅛"D • Weight: 1 lb.

	1-9	10+
P8130 (F25X).	$5.95	$4.95

- Input: 115V Primary, single secondary 50-60Hz • Output: 21VCT @ 2 amps • 1500RMS test voltage • Mounting centers: 3⅜" • Size: 4"L x 2⅜"H x 2¼"D • Weight: 2½ lbs.

	1-9	10+
F255X.	$7.95	$6.95

- Input: 117V/60Hz • Output: 12.6VCT @ 4 amps • 1500RMS test voltage • Mounting centers: 3¼" • Size: 3¹¹⁄₁₆"L x 2⅝"H x 2¾"D • Weight: 2¼ lbs.

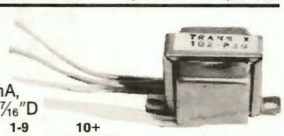
	1-9	10+
PX4.	$7.95	$6.95

Clock Module Transformers

- **Used with Clock Module MA1023**
- PRI: 115VAC, 60Hz • Sec: 9VAC @ 25mA, 8VCT @ 250mA • Size: 2"L x 1¾₁₆"H x 1⅞₁₆"D

See Clock Modules on Page 42.

	1-9	10+
102P20.	$3.49	$2.95

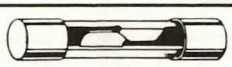


- **Used with Clock Module MA1026**
- PRI: 115VAC, 60Hz • Sec: 12VAC @ 25mA, 6.5VCT @ 250mA • Size: 2"L x 1¾₁₆"H x 1⅞₁₆"D

See Clock Modules on Page 42.

	1-9	10+
102P22.	$3.49	$2.95

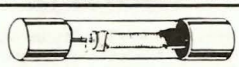
FUSES



AGC FUSES • BUSS fast acting fuses for protection of instruments • Size: ¼" x 1¼" • Glass tube • 3AG 250V or less

Please Specify Amperes:
¼, ⅜, ½, ¾, 1, 2, 4
Box includes 5 of same type fuse.

AGC-___ (Specify Amps) . . . **$3.25/box**



MDL FUSES • FUSETRON dual element glass tube • Slow blowing fuse • Size: ¼" x 1¼" • 250V or less

Please Specify Amperes:
¹⁄₁₀, ⅛, ¼, ½, ¾, 1, 2
Box includes 5 of same type fuse.

MDL-___ (Specify Amps) . . . **$4.95/box**

Earless Fuse Clip

- For use with AGC, MDL and other ¼" fuses.
- Nickel plated • Size: .484"H x .300"W x .300D
- Hole diameter: .131"

Part No.	1-9	10+
EFC.	$.19	$.15

FUSE HOLDER

- Normal current carrying capacity: 30 amps • Recognized under the component program of Underwriters Lab. for 15 amps, 250V or less.

Part No.	1-9	10-99	100+
HKP.	.65	.55	.49

Note: **AFTER CURRENT NATIONAL STOCK IS DEPLETED JAMECO WILL SUBSTITUTE IIIV's PRODUCTS WHICH DIRECTLY CROSS-REFERENCE TO NATIONAL'S.**

.7" Red Digital LED Clock

FITS IN CC CLOCK CASE

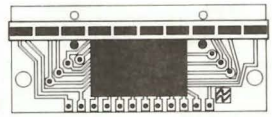
APPLICATIONS: • Clock radio timers • Alarm clocks • Desk clocks • TV/Stereo timers • Instrument panel clocks

FEATURES: Display size: 0.7 inch. "One-finger" 59-minute sleep counter setting. Multiple 9-minute snooze counter, 24-hr. alarm with on-off control. Entire display flashes to indicate power loss. Simple fast/slow setting controls. Five display modes (time, seconds, sleep, alarm, and lamp test). User selectable 12/24 hour, 50/60Hz and fixed/flashing colon operation. Leading zero-blanking. Requires only the addition of transformer and setting switches. Direct-drive LED display — no RFI. Continuous "two-level" or automatic display brightness control capability. Back-up oscillator option allows continuous time-keeping during power-line failure with a single 9V battery and external 5M ohm potentiometer. 800Hz (nom.) alarm tone output, gated at 2Hz rate. 24-hour output signal for optional calendar circuit. Separate inputs for all settings and display modes. Data sheet included.

MA1023 **Module** (3.30"L x 1.50"H x .624"D). **$9.95**
102-P20 **Transformer** for MA1023 Clock Module. **$3.49**

10-Segment Bargraph Displays

WITH ON-BOARD DRIVER IC-CHIP



NSM3914

Applications: • Power meter in stereo systems • VU-meter in tape recorders, etc.

Bar or dot display mode externally selectable by user. Packages are end-stackable for extended displays. Can be cascaded to 10 arrays (100 bargraph elements). LED current programmable from 2mA to 30mA. Stable internal voltage reference for full scale analog inputs from 1.2 to 12V. Size: 2"L x ⅞"H x 3/16"D (.160"L x .063"H per BAR).

Part No.	Description	Price
NSM3914	Linear Function (10 bars red).	**$5.49**
NSM39146	Linear Function (6 bars green/4 red).	**$5.95**
NSM3915	Logarithmic Function (10 bars red).	**$5.49**
NSM39158	Logarithmic Function (6 green/2 yellow/2 red). . . .	**$5.95**
NSM3916	VU-Meter Function (10 bars red).	**$5.49**
NSM39168	VU-Meter Function (6 green/2 yellow/2 red). . . .	**$5.95**

4-Digit 16/17-Segment Red Alphanumeric Intelligent Display Memory, Recorders & Driver

End-stackable, 4 character package. High contrast, 160mm high, magnified monolithic characters. 64-Character ASCII format. Built-in memory, decoder, multiplexer and drivers. Direct access to each digit independently and asynchronously. 5V logic, TTL compatible. 5V power supply only. Independent cursor function. Size: **(NSM1416)**: 1"L x 1 3/16"H x .225"D **(NSM2416):** 1"L x ¾"H x .245"D

Part No.	Description	Price
NSM1416	4-Digit 16-Seg. Display.	**$ 9.95**
NSM2416	4-Digit 17-Seg. Compact Display.	**$12.95**

.7" Red Digital LED Alarm Clock/Thermometer

APPLICATIONS: • Clock radio timers • Alarm clocks • Desk clocks • TV/Stereo timers • Instrument panel clocks • Thermometers (°C or °F)

FEATURES: 0.7" — 4-digit LED display. "One-finger" 59-minute sleep counter setting. Multiple 9-minute snooze counter. 24-hour alarm with on/off control. Entire display flashes to indicate power loss. Simple fast/slow setting controls. 6 display modes (temperature, time, seconds, alarm, sleep and lamp test). User selectable °C/°F, 12/24 hour, 50/60Hz and fixed/flashing colon function. Leading zero blanking. Complete system requires addition of transformer, setting switches and sensor. Direct-drive LED display — no RFI. Bright/dim or cont. display brightness control capability. 800Hz (nom.) alarm tone output, gated at 2Hz rate. 24-hour output signal for optional calendar circuit. Separate inputs for all setting and display modes. Data sheet included.

MA1026 **Module** (3.75"L x 1.75"H x .812"D). **$21.95**
102-P22 **Transformer** for MA1026 Clock Module. . . . . **$ 3.49**
LM334Z **Constant Current Source** (Temp. Sensor). . . . . **$ 1.19**

0.3" Green Digital 12VDC Clock Module

APPLICATIONS: • In-dash autoclocks • Aftermarket auto/recreational vehicle clocks • Aircraft-marine clocks • 12VDC operation instruments • Portable/battery powered instruments

FEATURES: Bright 0.3" green display • Internal crystal timebase • ±0.5 second/day accuracy • Automatic display brightness control logic • Display color filterable to blue, blue-green, green and yellow • Hour/minute switches already mounted — Ready-to-go • Complete with instructions • Size: 2½"L x 1⅛"H x 1⅜"D

MA3003 12VDC Digital Display Module. **$4.95**

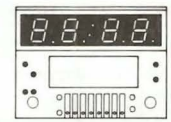
.5" Vacuum Fluorescent Display

FUTABA

The device is a 4-digit fluorescent display. The display features 10 bar indicators and a colon indicator. It is ideal for use in timer clocks and other such appliances and applications. Blue-green illuminations. Size: 3⅞"L x 1 9/16"H x ¾"D (Leads: ¾" long). For use as an alarm clock, use the MK50250 clock chip. Used in the JE750 Alarm Clock Kit.

Part No.	Description	Price
5-LT-43B1	4-Digit Plus Colon.	**$2.95**
MK50250	4/6 Digit Alarm w/Snooze Clock Chip. . . .	**$6.95**

0.5" 4-Digit LED Display with Serial Data/Parallel Data-Out LED Driver



APPLICATIONS: • COPS™ or microprocessor display • Digital clocks • Thermometers • Counters • Voltmeters • Instrumentation readouts

FEATURES: The NSM4005A is a 4-digit 0.5" height LED display with a serial data/parallel data-out LED driver designed to operate with minimal interface to the data source. Current drive to the LEDs is programmable by setting a reference current to a single pin. • Four 0.5" digits with right-hand decimal points • LED current is programmable • Serial data input • Clock format — colon between center digits • Enable • TTL compatible • Wide power supply operation • Direct current drive (non-multiplexed) • Size: 1.99"L x 1.70"H x .287"D

NSM4005A LED Display with Driver. **$7.95**

.5" 3½-Digit Field Effect LCD

AND

APPLICATIONS: • Digital voltmeters, thermometers, pressure gauges, timers, and clocks. Used with Intersil's 7106CPL ($9.95 ea.) and 7116CPL ($9.95 ea.) — page 6.

FEATURES: • Reflective LCD gives a dark display on a light background • "Low Battery" indicator • Ready to mount • 40-pin package (no connector required) • Size: 2.00"L x 1.20"H x .10"D (.10" pin spacing)

FE0203D Field Effect LCD with Pins. **$12.95**

.5" 4-Digit Field Effect LCD

AND

APPLICATIONS: • Digital multimeters, thermometers, pressure gauges, timers, clocks (12 or 24 hour format), and frequency counters. Used with Intersil's 7211IPL (TTL-compatible, $6.95 ea.) and 7211MIPL (micro-compatible, $7.49 ea.) — page 6.

FEATURES: • Reflective LCD gives a dark display on a light background • High visibility • Ready to mount • 40-pin package (no connector required) • Size: 2.00"L x 1.20"H x .10"D (.10" pin spacing)

FE0202D Field Effect LCD with Pins. **$12.95**

OPTOELECTRONICS

OPTO-ISOLATORS

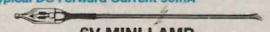
SC-Single Channel — CTR-Current Transfer Ratio

Part No.	Pins	Skt. Req.	Description	Price
IL-1	6	8	SC 50% CTR, 2500V (LIT-1)	$.69
MCT-6	8	8	Dual Photo Trans. 1500V (ILD74)	1.95
H11AA1	6	8	Photon Opto-Coupler, Hi-Isolation Volt. (1500V)	.69
H11C3	6	8	SCR Output Opto-Isolators	.99
4N25	6	8	SC 50% CTR, 2500V (MCT-2/LIT-1)	.69
4N26	6	8	SC 50% CTR, 1500V (Photo-Trans.)	.69
4N28	6	8	SC 50% CTR, 500V (Photo-Trans.) MOC1003	.49
4N33	6	8	SC 500% 1500V (Photo-Darl.)	.89
4N35	6	8	High DC CTR (100%), 2500V (Photo-Trans.)	.89
FCD810C	6	8	Optically-Coupled Isolator (5000V)	.49
FCD865C	6	8	Optically-Coupled Darl. Isolator (Hi-Sensitivity)	.49
MOC1006	6	8	SC Opto-Coupler 5000V	.89
PS2010	6	8	Photo Coupler 2000V	.69
MOC3010	6	8	Optically Isolated Triac Driver	1.25
MOC3031	6	8	Zero Voltage Crossing Triac Driver (250V)	1.95
6N138	8	8	Hi-Gain Split-Darl., 300% CTR, 3000V	1.95

LEDS

Typical Forward Voltage 1.60-2.20V
Typical DC Forward Current 50mA
· R-Red · G-Green · Y-Yellow · C-Clear

6V MINI LAMP
INCANDESCENT



Part No.		1-99	100+
801-147	Clear w/5" leads	9/$1.00	$.10 ea.
80620	Red w/5" leads	9/$1.00	$.09 ea.

DIFFUSED BI-COLOR/TRI-STATE
Reverse polarity to change color.

Size: .200" dia. (T1¾) .35"L Red/Green

Part No.	1-99	100-999	1000+
XC5491	4/$1.00	$.20 ea.	$.17 ea.

DIFFUSED

Size: .125" dia. (T1) .215"L

Part No.	1-99	100-999	1000+
XC209R	5/$.59	$.10 ea.	$.08 ea.
XC209G	4/$.69	$.13 ea.	$.11 ea.
XC209Y	4/$.69	$.13 ea.	$.11 ea.

POINT SOURCE

Size: .200" dia. (T1¾) .35"L

Part No.	1-99	100-999	1000+
XC554R	5/$.79	$.12 ea.	$.10 ea.
XC554G	4/$.79	$.15 ea.	$.13 ea.
XC554Y	4/$.79	$.15 ea.	$.13 ea.

DIFFUSED RED BLINKER

Size: .200" dia. (T1¾) .35"L

Part No.	1-99	100-999	1000+
XC5410	$.89 ea.	$.75 ea.	$.69 ea.

POINT SOURCE (RED)

Size: .170" dia. (TO-18) .200"L

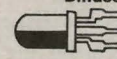
Part No.	1-99	100+
MV10B	8/$1.00	$.10 ea.

POINT SOURCE (RED)

Size: .085" dia. (T¾) .125"H

Part No.	1-99	100+
MV50	6/$1.00	$.15 ea.

Diffused Bi-Color (T1¾) .35"L



Part No.	Size: .200" dia.	1-99	100+
XC52RG (LTL-52RG)		$.49 ea.	$.39 ea.

Leads: 1) Green 2) Common Cathode 3) Red

DIFFUSED

Size: .200" dia. (T1¾) .35"L

Part No.	1-99	100-999	1000+
XC556R	5/$.49	$.09 ea.	$.07 ea.
XC556G	4/$.59	$.13 ea.	$.11 ea.
XC556Y	4/$.59	$.13 ea.	$.11 ea.
XC556C	4/$.59	$.13 ea.	$.11 ea.

DIFFUSED RECTANGULAR

Case Size: .150"W x .250"L x .271"H
Lead Length: 13/16"

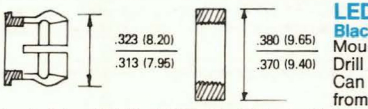
Part No.	1-99	100-999	1000+
XC57124R	4/$.59	$.13 ea.	$.11 ea.
XC52124G	3/$.79	$.23 ea.	$.19 ea.
XC53124Y	3/$.79	$.23 ea.	$.19 ea.

CLIPLITE LED MOUNTING SYSTEM

CLIPLITE mounts from the front of the panel in a .250" hole on 3/8" centers. Panel thickness from 1/16" to 1/8". CLIPLITE equalizes and increases the brightness of commonly used wide beam LEDs. CLIPLITE will accept LED diameters from .160" to .210" dia.

Can be used with the most popular LEDs:
• XC22 • XC111 • XC526 • XC554 • XC556

Part No.	Color	1-99	100-999	1000+
RTP280	Red	4/$.69	$.15 ea.	$.12 ea.
GTP280	Green	4/$.69	$.15 ea.	$.12 ea.
CTP280	Clear	4/$.69	$.15 ea.	$.12 ea.
YTP280	Yellow	4/$.69	$.15 ea.	$.12 ea.



LED Mounting Hardware
Black Plastic Clip and Ring

Mounts in panels up to .125" thick. Drill .257" diameter hole (F Drill). Can be used with any series LED from .160" to .200" diameter.

Used with: • XC22 • XC52RG • XC111 • XC526 • XC554 • XC556 • XC5491

Part No.	1-99	100-999	1000+
LMH-200	8/$.79	$.07 ea.	$.05 ea.

DISPLAYS

CA – Common Anode
CC – Common Cathode
O.F. – Over Flow
LHDP – Left Hand Decimal Point
RHDP – Right Hand Decimal Point


MAN 72


MAN 6610


5082-7653


NSN373

Part No.	Socket Required	Size	Color	Description	Price
DL34M	14	.110	Red	CC MUX (4-Digit Bubble)	$.69
DL704	14	.300	Red	CC (RHDP) SEA 3111	1.25
DL707	14	.300	Red	CA (LHDP) MAN72	.75
DLG500	24	.500	Green	CC (RHDP)	.49
DL850	24	.800	Red	CC (LHDP)	1.25
DL3400	24	.800	Red	CA (LHDP)	1.75
FND350	10	.362	Red	CA (RHDP)	.75
FND357	10	.362	Red	CC (RHDP) SEA 3410	.89
FND503	24	.500	Red	CC (RHDP) SEC 50101B	.89
FND507	24	.500	Red	CA (RHDP) SEA 5010	.89
FND508	24	.500	Red	CA (±1) O.F. (RHDP)	.89
FND807	24	.800	Red	CA (RHDP) FND810	1.75
HDSP-3401	24	.800	Red	CA (RHDP) SEA 8000	1.25
HDSP-3405	24	.800	Red	CC (LHDP) SEC 8100	1.25
MAN2	14	.320	Red	5x7 Alphanumeric (TIL305)	3.95
MAN71	14	.300	Red	CA (RHDP)	.75
MAN72	14	.300	Red	CA (LHDP) SEA 3110	.75
MAN73	14	.300	Red	CA (±1) Over Flow	.75
MAN74	14	.300	Red	CC (RHDP) XAN3064	.75
MAN6610	24	.560	Orange	CA (RHDP) 2 Digit DL728	1.49
MAN6640	24	.560	Orange	CC (RHDP) 2 Digit	1.49
MAN6650	24	.560	Orange	CC (±1) 1½ Digit	.99
MAN6660	24	.560	Orange	CA (RHDP)	.99
MAN6710	24	.560	Red	CA (RHDP) 2 Dig. (MAN6910)	.99
MAN6740	24	.560	Red	CC (RHDP) 2 Dig. SEC 5215	1.49
MAN6750	24	.560	Red	CC (±1) 1½ Digit	.99
NSN64R	24	.630	Red	CC (RHDP) DL750	.49
NSN74L	14	.300	Red	CC (LHDP) DL702	.49
TIL311	14	.300	Red	4x7 Hex. w/Logic	11.95
5082-7651	14	.430	Red	CA (RHDP) (DLO7651)	.69
5082-7653	14	.430	Red	CC (RHDP) (DLO7653)	.69
5082-7660	14	.430	Yellow	CA (LHDP)	.69
5082-7756	14	.430	Red	O.F. ±1 (RHDP) (NSN7756)	.69

– Inquiries welcome for quantity discounts –

LITRONIX – MULTI-DIGIT REFLECTOR ARRAYS P.C. BOARD MOUNTED

Part No.	Digit Size (Red)		Drive CC/CA	Overall Size (Inches) L x H x W	PRICE
DL2310	.300 (No dec.)	CA	2 Digit Multiplexed	.794 x .750 x .194	$.39
DL3130	1.000	CA	3 Digit Multiplexed	2.750 x 1.750 x .313	1.49
FNA3223	.300 (No dec.)	CA	2 Digit Multiplexed	.794 x .750 x .194	.39
FNA5298	.500 (No dec.)	CA	2 Digit Multiplexed	1.375 x .938 x .250	.49

MULTI-DIGIT REFLECTOR ARRAYS P.C. BOARD MOUNTED

IIIV™


NSB7923

NOTE: After current National stock is depleted, Jameco will substitute IIIV's products which directly cross-reference to National's.

NSN373	.3 (No dec.)	CC	2 Digit Direct	.80 x .80 x .225	$.39
NSN382	.3	CA	2 Digit Multiplexed	.80 x .80 x .225	.39
NSB3411	.3	CC	4 Digit – Colon/PM Ind. Multiplexed	1 9/16 x 13/16 x 3/16	.39
NSB3881	.3	CC	4 Digit Multiplexed	1.59 x .80 x .225	5.95
NSB3882	.3	CA	4 Digit Multiplexed	1.59 x .80 x .225	5.95
NSB5382	.5	CA	3½ Digit Multiplexed	1.99 x 1.00 x .28	5.95
NSB5881	.5	CC	4 Digit Multiplexed	1.99 x 1.00 x .28	5.95
NSB5882	.5	CA	4 Digit Multiplexed	1.99 x 1.00 x .28	5.95
NSB5922	.5	CA	5 Digit Multiplexed	3.00 x 1.10 x .282	.99
NSB7923*	.7	CC	6 Digit Multiplexed/ Direct*	3.60 x 1.35 x .292 (⅝ inch pins)	1.95

*Can be both Multiplexed/Direct by connecting all segments together

ORDERING INSTRUCTIONS

Jameco ELECTRONICS
1355 Shoreway Road
Belmont, CA 94002
(415) 592-8097
TELEX 176043
FAX 415-592-2503

TERMS. . . . . Domestic: Prepaid, C.O.D., credit card or approved open account. Net 30 days, F.O.B. Belmont. See detailed instructions below.

Foreign: Prepaid or credit card only. U.S. Funds – money order or cashier's check only. See detailed instructions below.

VISA MasterCard

$20.00 MINIMUM ORDER

ADDRESS CHANGE. . . . . . See *new* "ARE YOU MOVING?" section at the bottom of both Jameco Order Forms or send your previous address and customer number and we will update our files so you may receive all mailings.

CATALOG. . . . . . Future mailings and special sale flyers will be limited to active buying customers only . FREE catalogs will otherwise be available upon written request by sending $1.00 to cover postage and handling.

C.O.D. . . . . . Acceptable by telephone or mail. Payment from customer must be by cash, money order or company check. **Orders over $500.00 must be paid by cashier's check, cash, or money order.** We cannot accept personal checks as payment on C.O.D. parcels.

CONFIRMING ORDERS. . . . **CONFIRMING ORDERS ARE NOT NECESSARY.** If company policy necessitates a confirming order, please mark "confirming" boldly on the order. If problems or duplicate shipments occur due to an order which is not properly marked, customers will be held responsible for any charges incurred, **PLUS A 15% RESTOCK CHARGE ON RETURNED ORDERS.**

CREDIT CARDS. . . . . . MasterCard and VISA charges are accepted by mail or telephone. Complete order form with card number, name, signature, expiration date and daytime telephone number.

CUSTOMER NUMBER. . . . . A computerized customer number is issued to all persons receiving orders from Jameco. This number will be shown on your catalog mailing label or on a recent invoice. Please include this number on all orders and correspondence.

DAMAGED MATERIAL. . . . . All claims for damaged material must be made within 10 days of receipt. Contact the carrier that delivered your package for claim procedures.

DATA SHEETS. . . . . . Data sheets are available upon request for most items. Information available is descriptive data and basic electrical requirements only. Please include 50¢ for each data sheet requested. **MORE INFORMATION MAY BE REQUESTED AT AN ADDITIONAL COST.**

DELIVERY. . . . . . Orders are normally shipped within 48 hours after receipt of customer's order. If a part is on backorder, customer will be advised immediately. **Same day shipment requests will be made with the addition of a $10.00 service charge.**

FAX. . . . . . FAX Number (415) 592-2503. Please include your FAX number and company name and address.

FOREIGN ORDERS. . . . . . All foreign orders must be prepaid with credit card, cashier's check or money order drawn on a ***U.S. BANK IN U.S. FUNDS ONLY.*** **LETTERS OF CREDIT** are not an acceptable form of payment. **Orders of $1,000.00 USD and over must have a U.S. export license. (Order processing fee: $50.00.)** This will delay shipment 4 to 6 weeks after receipt of firm order. User must state specific end-use on order.

HOURS. . . . . . Monday through Friday (excluding holidays) 7:00 A.M. to 5:00 P.M. PST (Will Call Service 8:00 A.M. to 5:00 P.M.)

MINIMUM ORDER. . . . . . **$20.00 is the minimum order. Orders under $20.00 will be returned unprocessed.**

OPEN ACCOUNT. . . . . . We must have an approved credit application on file and/or a qualifying Dun & Bradstreet rating prior to shipment of open account orders. Credit application approval takes 4 to 6 weeks. All orders are Net 30 Days, F.O.B. Belmont.

ORDER FORMS. . . . . . New order forms are included with each order for your convenience. Additional forms available on request.

PRICES. . . . . . **PRICES AND DISCOUNTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.**

REFUNDS. . . . . . Refunds for returned material or overpayments will be issued only upon request – Credit Memos are standard Jameco policy. If a requested refund exceeds $100.00, the refund will be sent 30 days after Jameco receives payment. Note: C.O.D. remittances take up to 2 weeks to be received by Jameco from carrier.

RESTOCK CHARGE. . . . . . If parts are to be returned to Jameco due to customer error, customer will be held responsible for **all extra fees, plus a 15% restock charge on all returned parts.**

RETURNED CHECKS. . . . . . **ALL CHECKS RETURNED FOR ANY REASON WILL BE SUBJECT TO A $10.00 FEE.**

RETURNED MATERIAL. . . . . All returned material must be accompanied by the JAMECO ELECTRONICS CUSTOMER SERVICE FORM that is included with the original shipment. No return authorization number is needed.

DEFECTIVE MATERIAL: Returns must be made within sixty (60) days after receipt of parcel.

INCORRECT MATERIAL: Claims must be made within ten (10) days after receipt of parcel.

SALES TAX. . . . . . Sales tax must be charged to all orders delivered in California. Please include applicable tax for your area (i.e., 6%, 6½% or 7%). Persons having a current California Resale Card on file with Jameco will be exempt from this sales tax.

SHIPPING. . . . . .

DOMESTIC: United States, Guam, Puerto Rico, Virgin Islands — Our normal shipping method is via First Class Mail or UPS, depending on the size and weight of parcel. If you have a preference, please specify. Add 5% of total order (minimum postage $1.00) to cover cost of **shipping and handling.** Please include an additional $1.50 for insurance.

FOREIGN: Canada, and all others not Domestic — Our normal shipping method is via air mail or parcel post, depending on the size and weight of your parcel. If you have a preference, please specify. Add 20% of total order (minimum postage $2.00) to cover cost of **shipping and handling.** Please include an additional $2.00 for insurance. We will insure, when requested, to all countries where insurance is available.

Priority Service Shipments (e.g. air freight, overnight delivery, etc.) are available, upon request, to most areas.
Please contact us for further information. SAME DAY SHIPMENT SERVICE CHARGE – ADD $10.00.
WE ARE NOT RESPONSIBLE FOR UNINSURED SHIPMENTS

SHORTAGE. . . . . . If you believe you have not received your entire order, please advise on JAMECO CUSTOMER SERVICE FORM received with order and mail or notify our customer service department by telephone. Customers who do not notify us of problems with an order within ten (10) days will be held responsible for the entire order, as we will consider the order complete.

SUGGESTIONS. . . . . . Please write to us with any product suggestions or comments you may have regarding our current product lines. Mail to the attention of our **MARKETING DEPARTMENT, 1355 Shoreway Road, Belmont, CA 94002.**

TELEX. . . . . . Telex Number 176043. Please include your telex number, company name and country for prompt response.

WILL CALL SERVICE. . . . . . Available Monday through Friday (excluding holidays) 8:00 A.M. to 5:00 P.M. Orders must be placed one hour prior to pick-up so we may process the necessary paperwork ($20.00 minimum order).

← PLEASE ATTACH FOLD YOUR CHECK TO THE BACK OF THIS ORDER FORM, FOLD IN THE UPPER LEFT HAND CORNER.

Mail Order Electronics · Worldwide

Jameco ELECTRONICS

1355 Shoreway Road
Belmont, CA 94002 Telex: 176043

1987 CATALOG

MasterCard VISA

ORDER FORM

For Faster Ordering, Call 415-592-8097
Monday thru Friday 7:00am to 5:00pm P.S.T.

PLEASE FILL OUT ORDER FORM COMPLETELY

1987 CATALOG ORDER FORM

CUSTOMER NO. (See Below)

DAYTIME PHONE NO. ( ) EXT.
VERY IMPORTANT!!

(For Office Use Only)
Auth # Auth $ Date By

SHIP TO:

METHOD OF PAYMENT:

☐ Prepaid (check enclosed) ☐ COD ☐ Credit Card
☐ Net 30 Days (Account must be previously established)

PURCHASE ORDER NO.

Please check your credit card number and be sure to include your expiration date.
☐ MasterCard ☐ VISA

AUTHORIZED SIGNATURE:

ACCOUNT NUMBER: EXPIRATION

Are You Moving? ☐ **(OVER)** USE SPECIAL SECTION ON REVERSE SO WE CAN FORWARD OUR LITERATURE

NAME (Please Print)

Item No.	QTY.	PART NUMBER	DATA SHEETS	PRICE EACH	AMOUNT EXTENDED
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

$20.00 MINIMUM ORDER
~ PLEASE PRINT ~

— Please Flip Up Sheet to Continue and Complete Your Order —

Sub-Total

FOLD FOLD

FOLD FOLD

Item No.	QTY.	PART NUMBER	DATA SHEETS	PRICE EACH	AMOUNT EXTENDED
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

DATA SHEETS Includes descriptive data and basic electrical requirements only. TOTAL DATA SHEETS

DOMESTIC ORDERS: Postage & Handling: 5% of total order ($1 minimum)
Insurance: $1.50 (not responsible for uninsured parcels)
Tax: California Residents only –
*Please include applicable sales tax for your area (i.e., 6% or 6½%)

FOREIGN ORDERS: Postage & Handling: 20% of total order ($2 minimum)
Insurance: $2.00 (only where postal regulations allow).
NOT RESPONSIBLE FOR UNINSURED PARCELS.
Payment: Cashier's Check or Money Order
(U.S. Funds only, payable through a U.S. Bank)

@ .50 each	
Sub-Total	
Sub-Total (FRONT)	
TAX* (Calif. Only)	
Postage	
Insurance	
Credit Memo (if applicable)	
TOTAL	

Jameco ELECTRONICS

ARE YOU MOVING?

If you've moved, or are planning to do so in the near future, please write your old and new addresses in the spaces provided.

Jameco ELECTRONICS

– OLD ADDRESS –

Name _____ Title _____
Company _____
OLD Address _____
City _____ State ____ Zip _____

– NEW ADDRESS –

Name _____ Title _____
Company _____
NEW Address _____
City _____ State ____ Zip _____

IMPORTANT – Please fold Order Form on the dotted fold lines –

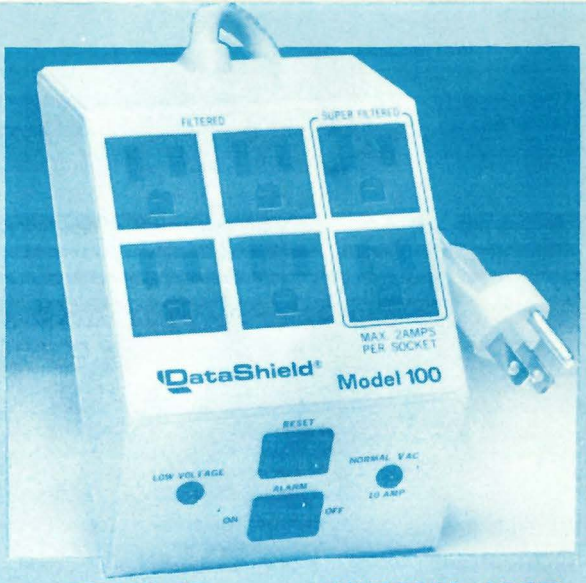
DataShield®
FROM PTI INDUSTRIES

...So Who Needs Protection?

YOU DO...Microprocessor systems experience equipment damage, memory loss, system "lock-ups," input of erroneous data or other alterations – all from a split second of power variation.

The **DataShield Model 100 Surge Protector** plugs into any standard outlet. The computer equipment is then plugged into the unit's protected AC receptacles. As the utility power enters the DataShield, it passes through circuitry which filters the voltage before it reaches the unit's receptacles. This same system of circuitry also filters out electromagnetic interference (EMI) and radio frequency interference (RFI), the sources of hazardous line noise. The Model 100 is equipped with extra large metal oxide varistors (MOV), a gas discharge tube and multiple inductors. DataShield's 200 joule rating provides up to 18 times the protection of some popular models and 4 times the protection of most brands.

SPECIFICATIONS: • Clamping level: 200V peak • Clamping Response: Less than 5ns • Power Dissipation (100ms): 2,000,000 Watts • Energy Dissipation: 200 Joules • Mode Noise Protection: Transverse and Common • Noise Attenuation: −20db to −100db • Frequency Range: 100KHz to 300MHz • Circuit Overload Protection: 10 amp fuse • Reset Protection • Polarity Check • Low Voltage Notification • Normal Line Voltage Indicator Light • 6 Output Sockets • 6-foot Line Cord



PART NUMBER	REGULAR LIST	SPECIAL 1987 CATALOG PRICE
Model 100 6 Outlet Surge Protector.	~~$99.95~~	$69.95

FROM: _____

_____

_____

AFFIX
STAMP
HERE

Mail Order Electronics · Worldwide

Jameco® ELECTRONICS

1355 SHOREWAY ROAD
BELMONT, CALIFORNIA 94002

1987 CATALOG
ORDER FORM
ENCLOSED!

ORDER PROCESSING

← PLEASE ATTACH YOUR CHECK TO THE BACK OF THIS ORDER FORM, IN THE UPPER LEFT HAND CORNER.

Mail Order Electronics · Worldwide

Jameco ELECTRONICS

1355 Shoreway Road
Belmont, CA 94002 Telex 176043
FAX #: (415) 592-2503

1987 CATALOG ORDER FORM

MasterCard VISA

For Faster Ordering, Call 415-592-8097
Monday thru Friday 7:00am to 5:00pm P.S.T.

PLEASE FILL OUT ORDER FORM COMPLETELY

PRICES TAKEN FROM: ☐ JAMECO CATALOG ☐ MAGAZINE _____ ☐ FLYER NO. _____

CUSTOMER NO.

DAYTIME PHONE NO. ( ) EXT.
VERY IMPORTANT!!

(For Office Use Only)
Auth # Auth $ Date By

SHIP TO:

NAME: _____

ADDRESS: _____

_____

CITY: _____

STATE: _____ ZIP: _____

METHOD OF PAYMENT:

☐ Prepaid (check enclosed) ☐ COD ☐ Credit Card
☐ Net 30 Days (Account must be previously established)

PURCHASE ORDER NO.

Please check your credit card number and be sure to include your expiration date.
☐ MasterCard ☐ VISA

AUTHORIZED SIGNATURE: FOLD

ACCOUNT NUMBER: EXPIRATION DATE:

Are You Moving? ☐ **(See below)** Use Special Section below so we can forward our literature.

NAME (Please Print)

Item No.	QTY.	PART NUMBER	DESCRIPTION	DATA SHEETS	PRICE EACH	AMOUNT EXTENDED
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						FOLD
18						

$20.00 MINIMUM ORDER
— PLEASE PRINT —

DATA SHEETS Includes descriptive data and basic electrical requirements only. TOTAL DATA SHEETS _____ @ .50 each _____

DOMESTIC ORDERS: United States, Guam, Puerto Rico, Virgin Islands
Postage & Handling: 5% of total order ($1 minimum)
Insurance: $1.50 (not responsible for uninsured parcels)
Tax: California Residents only —
*Please incl. applicable sales tax for your area (i.e., 6%, 6½%, 7%)

FOREIGN Orders: Canada, and all others not Domestic
Postage & Handling: 20% of total order ($2 minimum)
Insurance: $2.00 (only where postal regulations allow).
NOT RESPONSIBLE FOR UNINSURED PARCELS.
Payment: Cashier's Check or Money Order
(U.S. Funds only, payable through a U.S. Bank)

Above or Attached Sheet	Sub-Total	
SAME DAY SHIPMENT	Service Charge $10.00	
CALIFORNIA ONLY 6%, 6½%, 7%	TAX*	
☐ UPS ☐ U.S. Mail	Postage	
	Insurance	
	Credit Memo (if applicable)	
	TOTAL	

ARE YOU MOVING?

If you've moved, or are planning to do so in the near future, please write your old and new addresses in the spaces provided.

— OLD ADDRESS —

Name _____ Title _____
Company _____
OLD Address _____
City _____ State ___ Zip _____

— NEW ADDRESS —

Name _____ Title _____
Company _____
NEW Address _____
City _____ State ___ Zip _____

IMPORTANT — Please fold Order Form on the dotted fold lines —

COILS & CHOKES

YOUR CHOICE – 8/$1.00

10MM Adjustable Coil

Space Wound Insert Molded

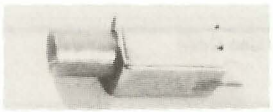
• Inductance (μH): .220 min .230 nom .286 max • Q Min: 140 • No. Turns: 6½ • Color: Blue
• Size: (2873326) .520"W x 1.00"H (.290 dia. shaft)

118,000 In Stock

Part No. — Price

CL-1. . . . . 8/$1.00

10MM Adjustable Coil



• Inductance (μH): .064 min .069 nom .0735 max • Q Min: 65 • No. Turns: 2½ • Color: Red
• Size: (2873326-2) .400"W x 1.00"H (.290 dia. shaft)

85,000 In Stock

Part No. — Price

CL-2. . . . . 8/$1.00

Arm Stretcher Coil

• Winding: 800 Turns (42 AWG)
• DC Resistance: 110 ± 10 Ohms
• Size: (2861411-1) .820"W x .530"L x .450"H

22,000 In Stock

Part No. — Price

CL-3 . . 8/$1.00

COIL

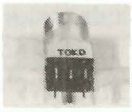
• Inductance (mH): 18 ± 5%
• 60 KHz
• Size: (2843031-1) .413" Dia. x .551"H

25,000 In Stock

Part No. — Price

CL-4 . . 8/$1.00

FILTER COIL



• Center Frequency: 716 KHz ± 1%
• Tuning Capacitance: 91pF ± 10 (2861062-1)
• Bandwidth (3DB): 150KHz
• Size: .295" Dia. x .473"H

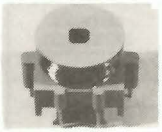
116,000 In Stock

Part No. — Price

CL-5 . . . . . 8/$1.00

Lifter Coil

Phenylene Oxide Grey



• Winding: 2800 Turns (40 AWG)
• DC Resistance: 417 ± 40 Ohm
• Size: (2861409-1) .575"H x .800"W

20,000 In Stock

Part No. — Price

CL-6 . . 8/$1.00

Sweeper Coil

Phenylene Oxide Grey

• Winding: 1500 Turns (35 AWG)
• DC Resistance: 53 ± 5 Ohms
• Size: (2861415-1) .625"H x .430"W

14,000 In Stock

Part No. — Price

CL-7 . . 8/$1.00

COIL

• Inductance (μH): 9 min 10 nom 11 max
• Q Spec: 55 min. Q
• Freq.: 4.5MHz
• Color: Brown
• Size: (1467370-1) 1.00"H x .387" dia.

82,000 In Stock

Part No. — Price

CL-8 . . 8/$1.00

COIL

• Inductance (μH): 50 min 62 nom 80 max • Q Spec: 45 min. Q • Freq.: 4MHz • Color: Green
• Size: (1467370-5) 1.00"H x .387" dia.

59,000 In Stock

Part No. — Price

CL-9 . . 8/$1.00

COIL

• Inductance (μH): 14 min 20 nom 28 max • Q Spec: 45 min. Q • Freq.: 4MHz • Color: Blue
• Size: (1467370-6) 1.00"H x .387" dia.

96,000 In Stock

Part No. — Price

CL-10 8/$1.00

Toroidal Line Choke

• Inductance. (μH): 100 2.5A (RMS) Max @ 60 Hz
• Size: (2873085-1) .95" dia. x .67"H

10,000 In Stock

Part No. — Price

CK-1 8/$1.00

MISCELLANEOUS COMPONENTS

Miniature Slide Switch (Side)

• PC Mount • Size: 5/16"L x 3/16"W x ¼"H
• 1-pole, 2-position (ON/ON)

20,000 In Stock

SW145. . . . . 6/$1.00

Switchcraft Pushbutton Switch

• PC Mount • Size: 1⅞"L x ½"W x ⅜"H
• 2-pole, 2-position (ON/MOM)

8,000 In Stock

SW146. . . . . 4/$1.00

Chicago Switch Rotary Switch

• PC Mount
• SP7T - 7-position
• 0.5 Amp @ 125VAC
• Switch dia.: .31"
• Shaft length: .18"

CLOSE-OUT!
7,000 In Stock

RS-7. . . . . 2/$1.00

HEATSINKS For TO-3 Case

• Black Anodized *OR* Clear Aluminum
• Size: (6015C) 1.88"L x 1.375"W x 1"H (6016B) 1.88"L x 1.375"W x 1¼"H

Part No. — Price

6015C Clear Aluminum. . . . . 2/$1.00
6016B Black Anodized. . . . . 2/$1.00

TIMEX WATCH MODULES

A variety of TIMEX watch modules are available. Batteries not included. Style and size may vary.

CLOSE-OUT!
4,000 In Stock

TIMEX-1. . . . . 3/$1.00

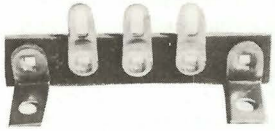
PC Board Standoff SPACER

• Provides ample clearance from the chassis for assembled boards
• ⅝" spacing distance

50,000 In Stock

ST-OFF. . . . . 12/$1.00

TERMINAL STRIP



• 3 isolated terminals with mounting lugs • Size: 1⅞"L x 11/16"H (including terminal)

CLOSE-OUT!

TS-4. . . . . 3/$1.00

POTENTIOMETERS

• Volume control pots
• Audio taper
• Shaft length: 15/16"L x ¼" dia.

Part No.	Resistance Value	Price
PT-7K	7K	3 for $1.00
PT-50K	50K	3 for $1.00
PT-100K	100K	3 for $1.00

WIRE, CABLE AND POWER CORDS

30 AWG KYNAR WIRE WRAP SOLID CONDUCTOR WIRE

Part No.	AWG	Color	100 Feet	1000 Feet	6000 Feet
130BE	30 AWG	Blue	$2.95 C	$19.95 M	$99.95/6M
130BK	30 AWG	Black	$2.95 C	$19.95 M	$99.95/6M
130G	30 AWG	Green	$2.95 C	$19.95 M	$99.95/6M
130O	30 AWG	Orange	$2.95 C	$19.95 M	$99.95/6M
130R	30 AWG	Red	$2.95 C	$19.95 M	$99.95/6M
130V	30 AWG	Violet	$2.95 C	$19.95 M	$99.95/6M
130W	30 AWG	White	$2.95 C	$19.95 M	$99.95/6M
130Y	30 AWG	Yellow	$2.95 C	$19.95 M	$99.95/6M

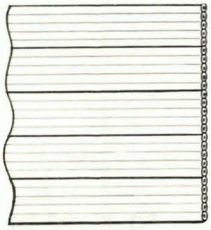
PLEASE SPECIFY PART NO. AND FOOTAGE WHEN ORDERING

22 AWG SOLID WIRE

- For use with Bus Strips, Breadboards, EXP Boards, Proto Boards, etc.
- Ideal for schools and students — buy in quantity and SAVE.

Part No.	AWG	Color	100 Feet	1000 Feet
122BE	22 AWG	Blue	$3.95 C	$29.95 M
122BK	22 AWG	Black	$3.95 C	$29.95 M
122G	22 AWG	Green	$3.95 C	$29.95 M
122R	22 AWG	Red	$3.95 C	$29.95 M
122W	22 AWG	White	$3.95 C	$29.95 M
122Y	22 AWG	Yellow	$3.95 C	$29.95 M

PLEASE SPECIFY PART NO. AND FOOTAGE WHEN ORDERING



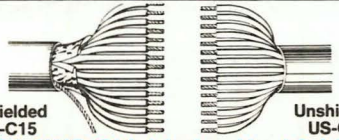
28 AWG FLAT GREY STRANDED RIBBON CABLE

Uses:

- Dip Jumpers
- Insulation Displacement Connectors
- Cable Assemblies

Part No.	Conductors	1-49 Feet	50-99 Feet	100-999 Feet	1000 Feet
171-9	9	$.16	$.13	$12.95 C	$114.95 M
171-14	14	$.25	$.22	$19.95 C	$174.95 M
171-15	15	$.27	$.24	$20.95 C	$189.95 M
171-16	16	$.29	$.25	$22.95 C	$199.95 M
171-20	20	$.36	$.31	$27.95 C	$249.95 M
171-24	24	$.43	$.38	$33.95 C	$299.95 M
171-25	25	$.44	$.39	$35.95 C	$319.95 M
171-26	26	$.46	$.41	$36.95 C	$329.95 M
171-34	34	$.59	$.53	$47.95 C	$429.95 M
171-36	36	$.63	$.56	$50.95 C	$449.95 M
171-37	37	$.65	$.58	$51.95 C	$469.95 M
171-40	40	$.71	$.63	$56.95 C	$499.95 M
171-50	50	$.89	$.79	$69.95 C	$629.95 M

PLEASE SPECIFY PART NO. AND FOOTAGE WHEN ORDERING



24 AWG Shielded — Unshielded Communication Cable

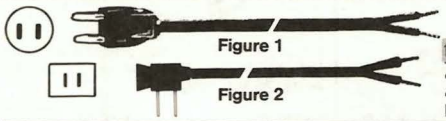
Part No.	Conductors	Description	1-49 Feet	50-99 Feet	100-999 Feet	1000 Feet
US-C4	4	Unshielded	$.15	$.12	$10.95 C	$ 99.95 M
US-C9	9	Unshielded	$.35	$.32	$28.95 C	$259.95 M
US-C15	15	Unshielded	$.55	$.49	$43.95 C	$389.95 M
US-C25	25	Unshielded	$.95	$.85	$76.95 C	$689.95 M
S-C4	4	Shielded	$.19	$.16	$14.95 C	$129.95 M
S-C9	9	Shielded	$.45	$.39	$34.95 C	$309.95 M
S-C15	15	Shielded	$.55	$.49	$44.95 C	$399.95 M
S-C25	25	Shielded	$.89	$.82	$73.95 C	$659.95 M

PLEASE SPECIFY PART NO. AND FOOTAGE WHEN ORDERING

Coaxial Cable

Part No.	1-49 Feet	50-99 Feet	100-999 Feet	1000 Feet
RG58C/U (50 ohm)	$.29	$.26	$22.95 C	$199.95 M
RG59B/U* (31 ohm)	$.31	$.28	$23.95 C	$209.95 M

*Used on Cable TV *PLEASE SPECIFY PART NO. AND FOOTAGE WHEN ORDERING*

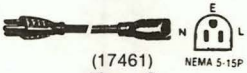


18 AWG TWO CONDUCTOR POWER CORDS

Part No.	Length	Color	Type	1-9	10-99	100+
468-828	6 feet	Black	Figure 1	$ .49	$ .45	$ .39
435-802	13 feet	Black	Figure 2	$ .79	$ .69	$ .59
PCE-10 Ext. Cord	10 feet	Brown	Figure 1	$1.49	$1.39	$1.29

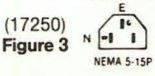
16/18 AWG THREE CONDUCTOR POWER CORDS

Outer Jacket Stripped 1½"
Figure 1



(17461)
Figure 2

(17250)
Figure 3



Detachable Power Supply Cord
(17250 Fits RFI Filters — See page 49)

Shielded Power Cord (17740) with Special Grounding Ring

Part No.	Type	Rating	AWG (Stranding)	Length Cord (ft.)	Nom OD (In.)	Insulation	Color	1-9	10-99	100+
17236	Fig. 1	1250 Watts 10A-125V	18 (41x34)	6	.265	SV Rubber Molded Plug	Black	$1.79	$1.65	$1.45
17238	Fig. 1	1250 Watts 10A-125V	18 (41x34)	8	.265	SV Rubber Molded Plug	Black	$2.19	$1.95	$1.75
17237	Fig. 1	1250 Watts 10A-125V	18 (41x34)	6	.253	SVT Vinyl Molded Plug	Grey	$1.39	$1.25	$1.09
17239	Fig. 1	1250 Watts 10A-125V	18 (41x34)	8	.253	SVT Vinyl Molded Plug	Grey	$1.65	$1.49	$1.29
17250	Fig. 3	1250 Watts 10A-125V	18 (41x34)	7½	.253	SVT Vinyl Molded Plug	Black	$2.29	$1.95	$1.85
17461	Fig. 2	1250 Watts 10A-125V	16 (26x30)	10	.328	SJ Rubber Molded Plug	Black	$3.95	$3.75	$3.49
17740	Fig. 1	1250 Watts 10A-125V	18 (41x34)	6½	.270	SVT Vinyl Molded Plug	Black	$2.19	$1.95	$1.75
PWC-15	Fig. 1	1250 Watts 10A-125V	18 (41x34)	15	.375	SJ Rubber Molded Plug	Black	$1.95	$1.75	$1.45

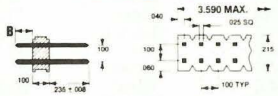
JUMPERS, HEADERS, IC PINS AND BNC ASSEMBLIES

Shorting Socket Jumpers
Mate with Male Headers

• Designed as a shorting socket jumper to address or code strip line plugs • Mates to .025" sq. posts on strip line plugs • Mates to .100" ctrs. in all grid directions • J-OPEN and J-CLOSED are functionally the same. J-OPEN is open on top to allow for a test point.

Part No.	Style	1-9	10-99	100+
J-Open	Open	$.19	$.17	$.15
J-Closed	Closed	$.19	$.17	$.15

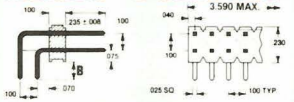
Straight Male Headers Double Row



• Snap apart to fit your application • Solder to PC boards for instant plug-in access via shorting socket jumpers (left) • .025" square posts on a .100" x .100" matrix

Part No.	No. of Posts	1-9	10-99	100+
923862R	20	$ .59	$ .52	$ .46
923863R	26	$ .75	$ .65	$ .59
923864R	34	$ .89	$ .79	$ .69
923865R	40	$1.15	$ .99	$ .89
923866R	50	$1.35	$1.19	$1.09

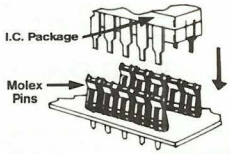
Right-Angle Male Headers— Double Row



• Snap apart to fit your application • Solder to PC boards for instant plug-in access via shorting socket jumpers (left) • .025" square posts on a .100" x .100" matrix

Part No.	No. of Posts	1-9	10-99	100+
923872R	20	$ .75	$ .65	$ .59
923873R	26	$ .95	$ .83	$ .75
923874R	34	$1.25	$1.10	$ .99
923875R	40	$1.45	$1.29	$1.15
923876R	50	$1.79	$1.59	$1.39

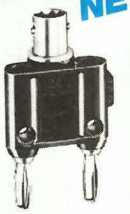
MOLEX PINS
IC Connector Pins



• Pin Spacing: .100" • Size: 5/16"H • Pre-packaged in strips • Minimum order: 100 pins • Intended for applications where a full ladder style socket is not needed

Part No.	100-999	1000-9999	10,000+
M-530-1	$1.95/C	$16.95/M	$13.95/M

NEW! BNC FEMALE TO STANDARD DOUBLE BANANA PLUG

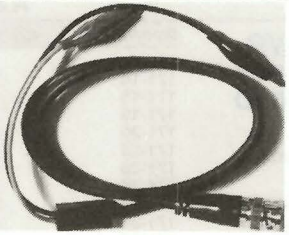


Permits BNC male to be used with equipment having banana jacks. Excellent for adapting laboratory VTVM, oscilloscopes and signal generator inputs to readily available coaxial cables.

UPPER: BNC female.

LOWER: Double banana plug, on 19.05mm (.750) centers. Cross holes 4.22mm (.166) dia. in body provide side stack-up connections.

	1-9	10+
BNC-2BAN.	$6.95	$6.19



32" Cable Assembly (Overall)

BNC MALE CABLE WITH TWO TEST CLIPS

Permits BNC assembly to be used as a test cable.

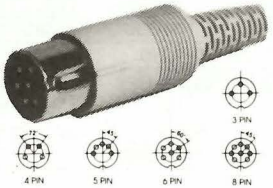
UPPER: Two Alligator Clips
Red: 5½" 22 AWG wire
Black: 9" 22 AWG wire

LOWER: 23" RG/59U Cable with Male BNC Connector (UG260/U)

	1-9	10+
BNC-ALCP	$3.95	$3.49

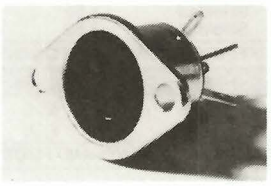
MISCELLANEOUS CONNECTORS AND ASSEMBLIES

Standard DIN Male Plug
with strain relief



Part No.	Pin	1-9	10+
DIN-P3	3	$ .69	$.59
DIN-P4	4	$ .75	$.65
DIN-P5	5	$ .79	$.69
DIN-P6	6	$ .99	$.89
DIN-P8	8	$1.09	$.99

Standard DIN Female Socket
Metal Body



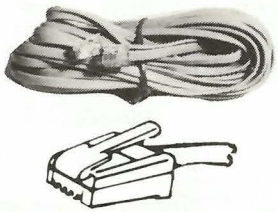
Part No.	Pin	1-9	10+
DIN-J3	3	$.49	$.45
DIN-J4	4	$.53	$.47
DIN-J5	5	$.55	$.49
DIN-J6	6	$.59	$.53
DIN-J8	8	$.89	$.79

Modular Telephone Adapter

Dual type adapter.
For modem use.

	1-9	10+
MTA-2 (RJ-11) . . .	$1.95	$1.29

Modular Telephone Extension Cord



For use with modem equipment. Connects to telephone line. Male connectors on both ends. 25 foot length.

	1-9	10+
MTE-25 (RJ-11).	$2.95	$2.29

9 Volt Battery Clip

• Standard clip for use with 9 volt transistor batteries. Has 4" leads.

	1-9	10+
BC9.	$.11	$.08

Alligator Clip Test Leads

• Color coded • Insulated alligator clip on each end • 15" long • 10 per package in assorted colors

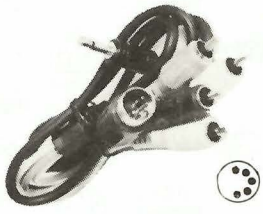
ALCP (10 per package)	$2.95

RCA to RCA Cable Assembly

• 10 foot RCA male to RCA male
• Great for video/audio applications

	1-9	10+
RCA-10-RCA . . .	$.99	$.69

Universal Computer to Monitor Cable



• For use with Atari, Commodore and Texas Instruments computers • 5-pin DIN male connector to 4 RCA type plugs • Includes RCA jack to 3.5mm plug — 3'L

	1-9	10+
RCA-3-DIN.	$3.95	$3.49

CONNECTORS

PC Card Edge Connectors

PC AND SOLDER EYELET

DOUBLE READ-OUT

15/30SE

Fits all PC boards .054" to .070"(thickness of board)

Part No.	Contacts	Spacing	Description	1-99	100+
12/24SE	12/24	.156	Solder Eyelet **(Commodore)**	$1.49	$1.29
15/30SE	15/30	.156	Solder Eyelet	$1.19	$1.05
18/36SE	18/36	.156	Solder Eyelet	$1.79	$1.59
22/44PC	22/44	.156	Printed Circuit	$1.19	$ .99
22/44SE	22/44	.156	Solder Eyelet	$1.95	$1.69
31/62SE	31/62	.100	Solder Eyelet **(IBM AT, PC & XT)**	$2.95	$2.69
R636-2	36/72	.100	Solder Eyelet	$4.95	$4.49
50/100SE	50/100	.125	Solder Eyelet (S100)	$4.95	$4.49

DOUBLE READ-OUT

122/44

Fits all PC boards .054" to .070" (thickness of board)

WIRE WRAP

Part No.	Contacts	Spacing	Description	1-99	100+
122/44	22/44	.100	W/W type - 2 level	$2.49	$1.95
22/44WW	22/44	.156	W/W type - 3 level	$5.95	$5.39
R681-1	50/100	.125	W/W type - 3 level (S100)	$6.95	$6.19
R681-2	50/100	.125	W/W type - 1 level (S100)	$6.35	$5.59

RF Coaxial Connectors

	PART NO.	DESCRIPTION	FITS CABLE	PRICE 1-99	PRICE 100+
	PL259	UHF Plug (83-1SP)	RG8,11	$.85	$.79
	SO239	UHF Panel Receptacle (83-1R)	---	$.85	$.79
	PL258	UHF Straight Adapter (83-1J)	---	$.49	$.45
	UG88/U	BNC Plug (31-002)	RG55,58	$.79	$.69
	UG89/U	BNC Jack (31-005)	RG55,58	$.99	$.89
	UG260/U	BNC Plug (31-012)	RG59,71	$.85	$.79
	UG1094/U	BNC Bulkhead Receptacle	---	$.85	$.79

SEE PAGE 45 FOR RG58/59 COAXIAL CABLE

Micro Ribbon Connectors

57-30360

Metal

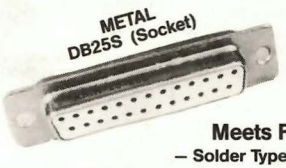
57-60360

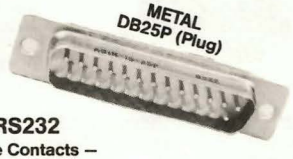
CENTRONICS – IEEE488

SOLDER TYPE CONTACTS

Part No.	Description	PRICE 1-99	PRICE 100+
57-30360	36-Pin Male (Centronics)	$1.89	$1.69
57-60360	36-Pin Female (Centronics)	$2.79	$2.49
57-30500	50-Pin Male	$3.39	$2.95
57-60500	50-Pin Female	$4.49	$3.95

D-Subminiature Connectors



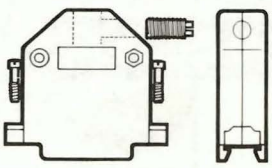


Meets RS232

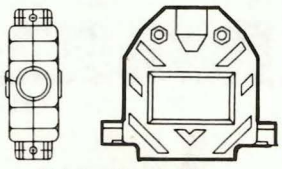
– Solder Type Contacts –

Part No.	Description	1-99	100+
DE9P	9 Contact Plug (RS449)	$ .49	$ .45
DE9S	9 Contact Socket (RS449)	$ .55	$ .45
DA15P	15 Contact Plug (RS422A/423A)	$ .65	$ .55
DA15S	15 Contact Socket (RS422A/423A)	$ .75	$ .65
DB25P	25 Contact Plug (RS232)	$ .75	$ .65
DB25S	25 Contact Socket (RS232)	$ .79	$ .69
DB25PC	25 Contact Printed Circuit Plug (RS232)	$ .65	$ .55
DB25SC	25 Contact Printed Circuit Socket (RS232)	$ .69	$ .59
DB25P-831	25 Contact Right Angle PC Plug (RS232)	$ .95	$ .85
DB25S-831	25 Contact Right Angle PC Socket (RS232)	$ .99	$ .89
DC37P	37 Contact Plug (RS449)	$1.45	$1.29
DC37S	37 Contact Socket (RS449)	$1.69	$1.49
DD50P	50 Contact Plug (RS422A/423A)	$2.19	$1.89
DD50S	50 Contact Socket (RS422A/423A)	$2.69	$2.39
D20418-2	2 Screw Lock Assemblies for mounting any D-Subminiature Connector or Hood to a panel	$ .69	$ .59

D-Subminiature Hoods



Plastic Hood with Strain Relief



Metalized Hood with Strain Relief
Plating: Nickel over Copper

D-Subminiature Connectors accommodate up to 20AWG wire.

Part No.	Max. Cable Size	Price 1-99	Price 100+	Part No.	Max. Cable Size	Price 1-99	Price 100+
DE-9H	.25"	$.45	$.39	MDE-9H	.35"	$1.09	$ .99
DA-15H	.34"	$.45	$.39	MDA-15H	.35"	$1.19	$1.09
DB-25H	.375"	$.45	$.39	MDB-25H	.46"	$1.35	$1.19
DC-37H	.375"	$.75	$.69	MDC-37H	.68"	$1.75	$1.55
DD-50H	.45"	$.79	$.75				

corcom RFI Power Line Filters and Receptacles

6EF1F

Mates to Power Cord #17250

See page 47

General purpose filter effectively provides RFI control of line-to-ground noise • Rating: 3 or 6 Amps; 115-250 VAC, 50/60Hz • Contacts: Solder terminals Size: 2.16"L x 1.97"W x 0.78"H

Part No.	Description	1-99	100+
3EF1	3 Amp RFI Filter	$3.95	$3.49
6EF1F	6 Amp RFI Filter	$4.95	$4.49
EAC-309	Male AC Receptacle	$ .99	$ .89

INSULATION DISPLACEMENT CONNECTORS

DIP PLUG CONNECTORS

609-16

Mates with standard 14, 16, 24 and 40 pin DIP sockets with .1" spacing

Part No.	No. of Contacts/ Conductors	1-9	10-99	100+
609-14	14	$ .59	$ .55	$ .49
609-16	16	$ .65	$ .59	$ .55
609-24	24	$ .89	$ .79	$ .69
609-40	40	$1.69	$1.49	$1.29

D-SUBMINIATURE CONNECTORS

Plastic

CDB25S

Part No.	No. of Contacts/ Style	1-9	10-99	100+
CDE9P	9 Male	$1.65	$1.45	$1.25
CDE9S	9 Female	$1.69	$1.49	$1.29
CDA15P	15 Male	$2.55	$2.29	$1.95
CDA15S	15 Female	$2.75	$2.45	$2.15
CDB25P	25 Male	$2.79	$2.49	$2.19
CDB25S	25 Female	$2.89	$2.59	$2.29
CDC37P	37 Male	$5.39	$4.79	$4.19
CDC37S	37 Female	$5.49	$4.89	$4.29

SOCKET CONNECTORS

Mates with 2 rows of .025" sq. or dia. posts on patterns of .100" centers and shielded receptacles

S26

Part No.	No. of Contacts/ Conductors	1-9	10-99	100+
S10	10	$ .75	$ .65	$ .59
S20	20	$1.05	$ .95	$ .85
S26	26	$1.15	$1.05	$ .89
S34	34	$1.55	$1.39	$1.25
S40	40	$1.69	$1.55	$1.39
S50	50	$1.95	$1.79	$1.59
S60	60	$2.59	$2.35	$2.09

CARD-EDGE CONNECTORS

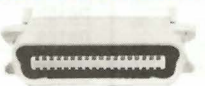
Mates with double-sided 1/16" PC board with contact fingers on .100" centers

C34

Part No.	No. of Contacts/ Conductors	1-9	10-99	100+
C20	20	$1.35	$1.25	$1.09
C26	26	$1.65	$1.49	$1.29
C34	34	$2.05	$1.85	$1.65
C40	40	$2.35	$2.10	$1.89
C50	50	$2.95	$2.69	$2.39

RIBBON CONNECTORS

36-Pin Centronics Plastic



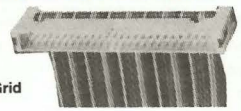
CEN36M Spring-type

Part No.	No. of Contacts/ Style	1-9	10-99	100+
CEN14M	14 Male	$5.29	$4.75	$4.25
CEN14F	14 Female	$5.19	$4.65	$4.15
CEN24M	24 Male	$6.29	$5.65	$4.85
CEN24F	24 Female	$6.19	$5.55	$4.95
CEN36M*	36 Male	$6.25	$5.59	$4.99
CEN36F*	36 Female	$6.69	$5.95	$5.39

*Spring-type

PLUG CONNECTORS

Mates with Socket Connectors (above) .100" x .100" Grid



P50

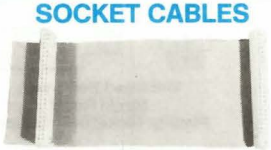
Part No.	No. of Contacts/ Conductors	1-9	10-99	100+
P20	20	$3.19	$2.89	$2.59
P26	26	$3.55	$3.19	$2.85
P34	34	$4.49	$3.95	$3.59
P40	40	$5.29	$4.75	$4.25
P50	50	$5.95	$5.45	$4.85

For Use With The Above IDC Connectors — 28AWG FLAT GREY STRANDED CABLE — For Use With The Above IDC Connectors

Part No.	No. of Conductors	AWG	1-49 Feet	50-99 Feet	100+ Feet
171-9	9	28AWG	$.16	$.13	$12.95C
171-14	14	28AWG	$.25	$.22	$19.95C
171-15	15	28AWG	$.27	$.24	$20.95C
171-16	16	28AWG	$.29	$.25	$22.95C
171-20	20	28AWG	$.36	$.31	$27.95C
171-24	24	28AWG	$.43	$.38	$33.95C
171-25	25	28AWG	$.44	$.39	$35.95C
171-26	26	28AWG	$.46	$.41	$36.95C
171-34	34	28AWG	$.59	$.53	$47.95C
171-36	36	28AWG	$.63	$.56	$50.95C
171-37	37	28AWG	$.65	$.58	$51.95C
171-40	40	28AWG	$.71	$.63	$56.95C
171-50	50	28AWG	$.89	$.79	$69.95C

INSULATION DISPLACEMENT CABLE ASSEMBLIES

SOCKET CABLES

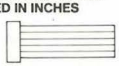


S50-18-S

DE = Double End SE = Single End

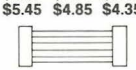
Mates with .025" dia. posts on patterns of .100" centers
ALL SOCKET CABLES ARE LISTED IN INCHES

A
Socket with 36" Cable



Part No.	No. of Contacts	Style	Length (Inches) Desc.	1-9	10-99	100+
S20-36	20	A	36" SE	$2.79	$2.49	$2.25
S26-36	26	A	36" SE	$3.19	$2.85	$2.55
S34-36	34	A	36" SE	$4.09	$3.65	$3.29
S40-36	40	A	36" SE	$4.55	$4.05	$3.65
S50-36	50	A	36" SE	$5.45	$4.85	$4.35

B
Socket to Socket



S20-6-S	20	B	6" DE	$3.09	$2.75	$2.49
S20-18-S	20	B	18" DE	$3.45	$3.05	$2.75
S26-6-S	26	B	6" DE	$3.35	$2.95	$2.69
S26-18-S	26	B	18" DE	$3.79	$3.39	$3.05
S34-6-S	34	B	6" DE	$4.29	$3.79	$3.45
S34-18-S	34	B	18" DE	$4.95	$4.39	$3.95
S40-6-S	40	B	6" DE	$4.75	$4.25	$3.79
S40-18-S	40	B	18" DE	$5.45	$4.85	$4.39
S50-6-S	50	B	6" DE	$5.49	$4.89	$4.45
S50-18-S	50	B	18" DE	$6.49	$5.69	$5.15

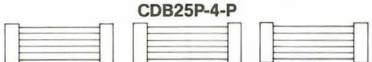
CENTRONICS/CDB25P CABLE ASSEMBLIES

Part No.	No. of Contacts	Description	1-9	10-99	100+
CEN36M-5	36	5' SE Male	$ 9.59	$ 8.59	$ 7.65
CEN36M-5-M	36	5' Male to Male	$15.79	$14.19	$12.59
CEN36M-5-F	36	5' Male to Female	$16.29	$14.65	$12.95
CDB25P-5-CEN36M	25	5' CDB25 Male to Centronics Male	$11.95	$10.89	$ 9.69

CDB25P AND CDB25S RS232 CABLE ASSEMBLIES

ALL D-SUBMINIATURE CABLES ARE LISTED IN FEET

CDB25P-4-P



C Male to Male **D** Female to Female **E** Male to Female

Part No.	No. of Contacts	Style	Length (Feet) Desc.	1-9	10-99	100+
CDB25P-4-P	25	C	4' DE	$7.59	$6.85	$6.09
CDB25P-10-P	25	C	10' DE	$9.95	$8.95	$7.95
CDB25S-4-S	25	D	4' DE	$7.39	$6.69	$5.95
CDB25S-10-S	25	D	10' DE	$9.79	$8.85	$7.85
CDB25P-4-S	25	E	4' DE	$7.49	$6.75	$5.95
CDB25P-10-S	25	E	10' DE	$9.89	$8.89	$7.95

STANDARD DIP JUMPERS

DJ24-1 DJ16-1

All DIP Jumpers come with Low Profile DIP Plugs with Heavy Duty Pins for repeated disconnect applications. Pin spacing: .1"
SE = Single End DE = Double End

Part No.	No. Pins	Desc.	Cable Length	1-9	10-99	100+
DJ14-1	14	SE	12"	$1.39	$1.25	$1.15
DJ14-2	14	SE	24"	$1.65	$1.45	$1.35
DJ14-3	14	SE	36"	$1.89	$1.69	$1.55
DJ14-1-14	14	DE	12"	$2.79	$2.49	$2.25
DJ14-2-14	14	DE	24"	$2.99	$2.69	$2.45
DJ14-3-14	14	DE	36"	$3.25	$2.89	$2.65
DJ16-1	16	SE	12"	$1.49	$1.35	$1.19
DJ16-2	16	SE	24"	$1.79	$1.59	$1.45
DJ16-3	16	SE	36"	$2.09	$1.85	$1.65
DJ16-1-16	16	DE	12"	$2.89	$2.59	$2.35
DJ16-2-16	16	DE	24"	$3.19	$2.85	$2.59
DJ16-3-16	16	DE	36"	$3.49	$3.09	$2.79
DJ24-1	24	SE	12"	$1.89	$1.69	$1.49
DJ24-2	24	SE	24"	$2.29	$2.05	$1.85
DJ24-3	24	SE	36"	$2.75	$2.45	$2.19
DJ24-1-24	24	DE	12"	$3.59	$3.19	$2.89
DJ24-2-24	24	DE	24"	$3.95	$3.59	$3.19
DJ24-3-24	24	DE	36"	$4.45	$3.95	$3.55
DJ40-1	40	SE	12"	$2.95	$2.65	$2.39
DJ40-2	40	SE	24"	$3.65	$3.25	$2.95
DJ40-3	40	SE	36"	$4.35	$3.85	$3.49
DJ40-1-40	40	DE	12"	$5.45	$4.85	$4.35
DJ40-2-40	40	DE	24"	$6.15	$5.45	$4.89
DJ40-3-40	40	DE	36"	$6.79	$5.95	$5.49

CUSTOM ASSEMBLIES

Use the part numbers from the connectors and cable to order your own custom assembled cables.
Example: If you desire a 25-foot cable with a male "Centronics" connector on one end, and a female "Centronics" connector on the other end, you would order:

CEN36M-25'-CEN36F Custom

$6.25 (CEN36M) + $6.69 (CEN36F) = ... $12.94
$ .63 X 25 (25 feet of 36 conductor cable) = ... $15.75
$5.00 Set-up charge on all custom cables = ... $ 5.00
This (CEN36M-25'-CEN36F Custom) Cable would cost. $33.69

Please specify "CUSTOM" after the part number to ensure your order will be filled correctly. ***(IMPORTANT: Please specify cable length in FEET, not inches.)*** **All Custom Cable Assemblies must be prepaid BEFORE assembly. There are no returns on Custom Cable Assemblies. There is a $5.00 set-up charge (PER STYLE) on all custom cables.**

COMPUTER CABLE ASSEMBLIES

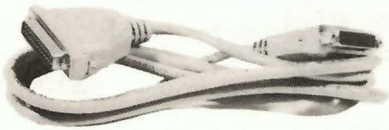
Parallel Printer Cable

For IBM and Compatibles to Epson-type printers

• 8 and 12 foot lengths • Exceeds FCC EMI/RFI requirements • Full shield of mylar foil • 24 AWG wire • Molded, shielded DB25 pin male connector • Molded 36-pin male Centronics connector • Color: beige

		1-9	10+
IBM-8PC	(8 Foot)	$ 9.95	$ 8.95
IBM-12PC	(12 Foot)	$11.95	$10.95

Serial Printer/Modem Cable



For serial applications, such as printers and modems

• 10 foot length • Exceeds FCC EMI/RFI requirements • Full shield of mylar foil • 24 AWG wire • Molded, shielded DB25 pin male and female connectors • All solder mount pins are plated pins • Pins 1-8 and Pin 20 wired • Color: beige

		1-9	10+
MMS-2210	(Male to Male)	$6.95	$5.95
MFS-2210	(Male to Female)	$7.49	$6.49

Centronics 36 Pin Shielded Cable

For parallel applications, such as switch boxes and printer extension cable

• 10 foot length • Exceeds FCC EMI/RFI requirements • Full shield of mylar foil • 24 AWG wire • Molded 36-pin Centronics connectors • Color: beige

		1-9	10+
S36M-10-M	(Male to Male)	$14.95	$13.95
S36M-10-F	(Male to Female)	$15.95	$14.95

Serial 25 Pin Shielded Cable

For serial applications, such as switch boxes and printer/modem extension cable

• 10 foot length • Exceeds FCC EMI/RFI requirements • Full shield of mylar foil • 24 AWG wire • Molded, shielded DB25 pin male and female connectors • Color: beige

		1-9	10+
S25M-10-M	(Male to Male)	$9.79	$8.79
S25M-10-F	(Male to Female)	$9.95	$8.95

Serial Printer/Modem Cable — RS232 Male to Female Assembly

• 15-foot length • 24 AWG cable • Manufacturer: Micom • Pins connected: 1-8, 11, 15, 17, 20, 22, 24 & 25

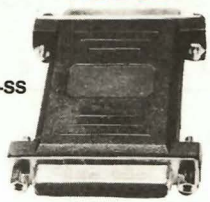
— LIMITED QUANTITY AVAILABLE —

		1-9	10+
MFS15	(Male to Female)	$5.95	$4.95

JAMECO GENDER CHANGERS

USED TO INTERFACE 2 CONNECTORS WHICH HAVE THE SAME GENDER

"RS232"



JRS-SS

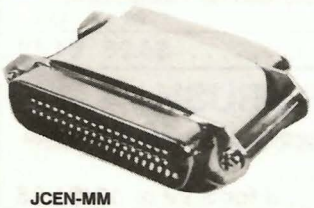
Double-End DB25P (Plug) Assembly to Interface Two DB25S (Socket) Connections

Part No.	1-9	10+
JRS-PP	$7.79	$6.79

Double-End DB25S (Socket) Assembly to Interface Two DB25P (Plug) Connections

Part No.	1-9	10+
JRS-SS	$7.95	$6.95

"CENTRONICS"



JCEN-MM

Double-End CEN36M (Male) Assembly to Interface Two CEN36F (Female) Connections

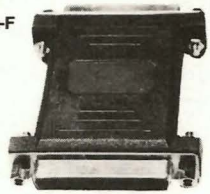
Part No.	1-9	10+
JCEN-MM	$9.95	$8.95

Double-End CEN36F (Female) Assembly to Interface Two CEN36M (Male) Connections

Part No.	1-9	10+
JCEN-FF	$9.79	$8.79

JAMECO FULL HANDSHAKING NULL-MODEM ADAPTERS

F-NUL-F



Self-contained null-modem (cross-over) adapters. Change any standard straight cable into a null cable quickly and easily. Internal pin configuration: 1-1, 2-3, 3-2, 4-5, 5-4, 6-20, 20-6, 7-7, 8-8

Part No.	Description	1-9	10+
M-NUL-M	DB25P (Plug) to DB25P (Plug) Null Modem	$5.49	$4.95
M-NUL-F	DB25P (Plug) to DB25S (Socket) Null Modem	$5.59	$5.09
F-NUL-F	DB25S (Socket) to DB25S (Socket) Null Modem	$5.69	$5.19
TT-25	Dual DB25 Hood Only	$1.25	$1.09

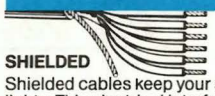
DESIGN YOUR OWN!

Cable, Connectors and Accessories

DESIGN YOUR OWN!

SHIELDED AND UNSHIELDED CABLE

SHIELDED



Place your Peripherals where they'll serve you best!

UNSHIELDED

Shielded cables keep your signals clean and true. The farther a signal travels, the more likely it can be altered by interference from other equipment or fluorescent lights. This electrical interference can cause static, dropouts or unkeyed characters. Recent FCC regulations now call for limited emissions from commercial and personal systems purchased after 10/1/83.

Part No.	Description	Price
205208M	ADI Male Connector Housing	$.69 each
205207F	ADI Female Connector Housing	$.69 each
DB25H	Male/Female Back Shelling	$.65 each
66506	ADI Male Crimp Pins	$.12 each
66504	ADI Female Crimp Socket Pins	$.14 each
US-C4	4-Line Cable – Unshielded	$.15 per foot
US-C9	9-Line Cable – Unshielded	$.35 per foot
US-C15	15-Line Cable – Unshielded	$.55 per foot
US-C25	25-Line Cable – Unshielded	$.95 per foot
S-C4	4-Line Cable – Shielded	$.19 per foot
S-C9	9-Line Cable – Shielded	$.45 per foot
S-C15	15-Line Cable – Shielded	$.55 per foot
S-C25	25-Line Cable – Shielded	$.89 per foot
RTT-2	2 each 24AWG 6" Ground Wires with Ring Terminal	$.89 per package
IT-S25	Insertion/Extraction Tool	$1.95 each

TOOLS, SOLDER AND ACCESSORIES

UL Approved

SOLDERING TOOL

• Heavy duty • Lightweight • 110-120V - 30 Watt • Size: 10″L

Part No.	Description	1-9	10+
SG-30	Solder Iron.	$4.95	$4.49
SG-Tip	Replacement Tip.	$ .99	$ .79

SOLDER WICK

- **Economical desoldering method**
- **Removes excess solder without damage to board or circuitry • 5 feet**

Part No.	Width	1-9	10+
40-1	.025″	$1.49	$1.19
40-2	.050″	$1.49	$1.19
40-3	.075″	$1.49	$1.19

SOLDER — 5-CORE RESIN

Dispenser Pak for Diodes, Transistors, Printed Circuits, Fine Wires. Extra thin, extra fast, non-corrosive, 13 feet. 60% tin/40% lead (SN60). 22 AWG — .028″ diameter.

Part No.	1-9	10+
PC115.	$2.95	$2.69

Electronic Solder

• 60% Tin • 40% Lead • Rosin Core
• 32 feet • .045″ diameter • Weight: 2.5 oz.

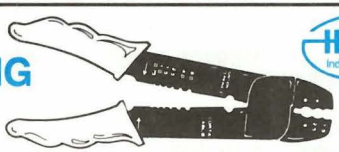
Part No.	1-9	10+
SK-15.	$4.95	$4.49

SOLDER BRUSH

SBrush (Length 6″). . . . . **3 for $.99 or 10/$1.95**

CRIMPING TOOL

Hoffman Industrial Products



• Standard/light duty • Electrical and general purpose • Crimps insulated terminals sizes 22-10 gauge • Strips wire 22-10 gauge • Molded vinyl grips • Stamped steel construction • Ideal for use with Solderless Terminal Kit A18K (at right).

Part No.	Description	1-9	10+
Y401	Crimping Tool.	$4.95	$3.95

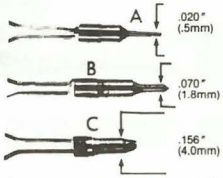
WAHL

QUICK-CHARGE CORDLESS SOLDERING IRONS

This versatile tool weighs only six ounces, and can be operated without power anywhere. It gives the performance of a 50 watt iron with a tip temperature of over 700°F. It will solder an average of 160 3-twist 22-gauge wire joints on one charge. Heats in 5 seconds. Complete with recharger. Model 7700 includes 1 fine and 1 heavy-duty tip. Model 7800 includes 1 fine tip and 1 chisel tip.

Part No.	1-9	10+
Model 7700 . . . . (Recharges in 3-4½ hours)	$39.95	$36.95
Model 7800 . . . . (Recharges in 60 minutes)	$49.95	$45.95

REPLACEMENT TIPS



Part No.	1-9	10+
7566 "A" (Micro) . . .	$3.95	$3.49
7545 "B" (Fine) . . .	$3.95	$3.49
7535 "C" (Regular) .	$3.95	$3.49

SOLDER

• .031″ Diameter
• Rosin Core • 1 lb. Roll

Part No.	1-9	10+
SN60.	$10.95	$9.95

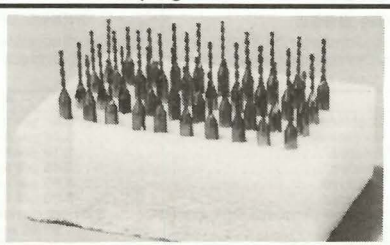
SOLDERLESS INSULATED TERMINALS & CONNECTORS

FOR ALL ELECTRICAL REPAIRS

Hoffman Industrial Products

Each Kit contains 175 insulated terminals and connectors and features 18 of the most popular styles and configurations (rings, spades, butt connectors, male female disconnects), everything needed to perform professional wiring jobs. See-through hinged box makes storage and selection quick and easy. A must for anybody who wants professional wiring results.

Part No.	Description	1-9	10+
A18K	Terminal/Connector Kit.	$7.95	$6.95



PC DRILL BITS — Reconditioned —

POPULAR BITS!

Part No.	Drill Description	Size	Application	1-9	10-99	100+
Bit D57	.043	57	Plated through holes, etc.	$1.29	$1.15	$.99
Bit D64	.036	64	IC's, ¼ W resistors, etc.	$1.29	$1.15	$.99
Bit D68	.031	68	IC's, ¼ W resistors, etc.	$1.29	$1.15	$.99
Bit D75	.021	75	Miscellaneous	$1.09	$ .99	$.89

Material: Carbon Steel

SPIRAL STEP TOOL COMPANY

PRECISION HAND TOOLS

A Cut above the rest!

Flush Cutter

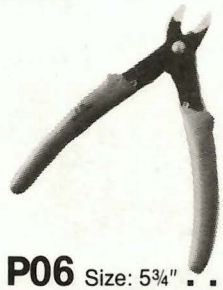
Flush Cutter for up to 16 AWG/.051" (1.3mm) soft wire. Push-button locking mechanism. Tip angle: 21°

	1-9	10+
P01 Size: 5" . . .	$4.95	$4.49

Semi-Flush Cutter

Low profile semi-flush cutter cuts 14 AWG/.064" (1.63mm) wire. Push-button locking mechanism. Cutting angle: 21°

	1-9	10+
P04 Size: 5¼" . .	$6.95	$6.29



Nose Cutter

Heavy duty blunt nose cutter to cut 10 AWG/.102" (2.59mm) wire Cutting angle: 20°

	1-9	10+
P06 Size: 5¾" . .	$6.95	$6.29

Cutter/ Crimper

Tool cuts and crimps leads in one operation. Handles lead diameters up to 18 AWG/.040" (1.02mm)

	1-9	10+
P07 Size: 5" . . .	$5.95	$5.39

Cutter/ Bender

This tool cuts and bends leads up to 18 AWG/.040" (1.02mm)

	1-9	10+
P08 Size: 5¼" . .	$5.95	$5.39

Long Needle Nose Plier

This long needle nose plier features a push-button locking mechanism and smooth jaws.

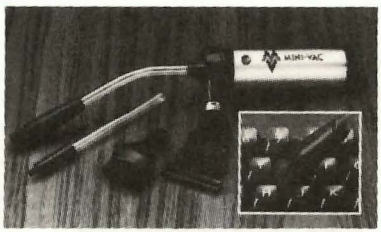
	1-9	10+
P12 Size: 6" . . .	$5.95	$5.39

MISCELLANEOUS TOOLS

MINI-VAC

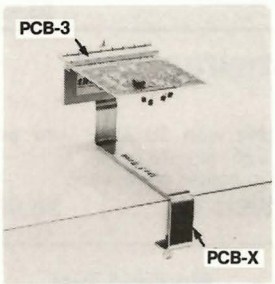
MINI-VAC Vacuum/ Blower

Remove minute dust & particles from your fine equipment. Over 100 uses: Computers, electronics, cameras, keyboards, etc.



• Vacuum/blower capability • Finest quality lens brush and all-purpose brush (2) • Interchangeable directional wands (2) • Operates on one 9V ALKALINE battery (not included) • Size (Main Body): 5½"L x 1¼" dia.

MINI-VAC. $19.95



THE 3RD HAND

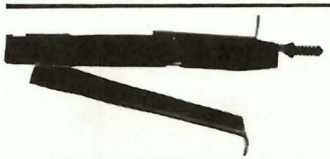
Lets you work with both hands. Sturdy aluminum construction.

Clamp *"The 3rd Hand"* on edge of bench table or workboard. Insert circuit board, position components. Notice convenient working angle. Flip circuit board to flat position for soldering and clipping. Reverse procedure for double-sided boards.

PCB-3 . . . $11.95

Extension to hold PCB-3 2" from bench and 6" from front edge.

PCB-X (Extension). **$4.95**

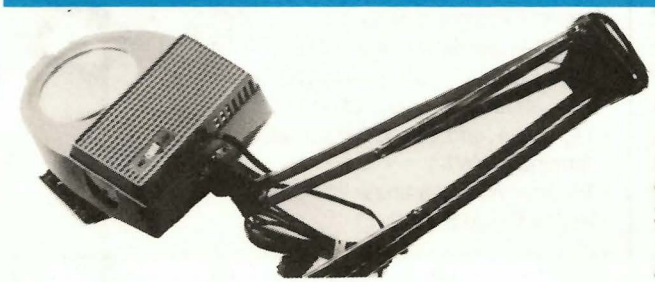


This Nibbling Tool is perfect for cutting, trimming, or notching sheet metal up to 18 gauge. It operates like a punch and die, and also works well on aluminum or plastic up to 1/16" thick. We feel that this tool can be a real time-saver for our customers when working on chassis, printed circuit boards and prototype models. Minimum 7/16" hole required. Size 6½"L.

NIBBLING TOOL

Part No.	Description	Price
NT-1	Nibbling Tool	**$9.95**
RP-1	Replacement Punch . .	**$5.95**

ADJUSTABLE MAGNIFIER LAMP



- **Large Magnification**
- **Incandescent 60-Watt Lamp†**
- **Maneuverable**

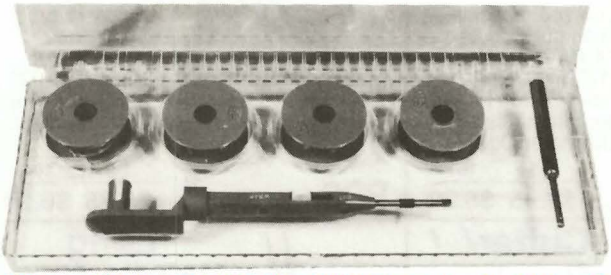
NEW!

• Great for overall inspection of components, PC boards, etc. • The AMLamp can be raised or lowered, tilted or turned in any direction • Metal "C" clamp • Porcelain socket • 4" dia. 3-diopter lens • 30" arm extension • UL approved • Color: beige Weight: 3 lbs.

†Bulb not included

AMLamp. $24.95

ok JUST WRAP™ ok
Wire Wrapping Kit



Why cut? Why strip? Why slit? Why not...Just Wrap?

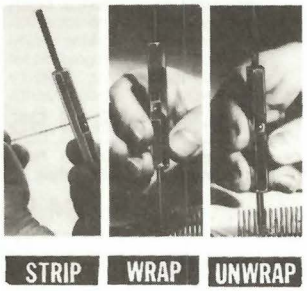
Daisy chain or point-to-point. No stripping or slitting required – just wrap. Built-in cut-off. Note: 30 AWG wire fits .025" square posts. The JWK-6 Kit includes Just Wrap Tool, 50 feet of blue, red, white and yellow 30 AWG Kynar™ wire and an unwrap tool.

Part No.	Description	Price
JWK-6	Wire Wrapping Kit	**$33.95**
JW-1-B	Wire Wrapping Tool – Blue	**$19.95**

REPLACEMENT WIRE (50 Feet)

R-JW-B	(Blue)	**$3.95**
R-JW-W	(White)	**$3.95**
R-JW-Y	(Yellow)	**$3.95**
R-JW-R	(Red)	**$3.95**

Strip-Wrap-Unwrap Tool



Use with 30 AWG wire on .025" square posts.
No solder necessary.

WSU-30. . . . . $8.95

Modified Tool

WSU-30M wraps 1 to 2 turns of insulated portion of wire for more secure connections.

WSU-30M (Mod.). . . $9.95

Wire Wrapping Kit – WK-2W

Includes a unique wire-wrapping tool, a roll of wire-wrapping wire, and pre-stripped wire in 4 popular lengths. The tool, Model WSU-30 is a combination tool that wraps and unwraps 30 AWG wire on .025" square pins, plus strips 30 AWG wire using a handy built-in stripper. The wire is top quality Kynar™ insulated silver plated copper. Supplied in the kit are a 50 foot roll plus 50 pieces each pre-stripped wire in 1", 2", 3" and 4" lengths, stripped 1" on both ends.

WK-2W . . . $16.95

ok JUST WRAP™ ok
Unwrap Tool

JUW-1 Unwraps 30 AWG Wire. **$4.95**

CUT and STRIP DISPENSER

- **Cuts and strips in one step.**
- **Strips 1" of insulation**
- **Refillable**
- **Includes 50 feet of 30 AWG Kynar™ wire-wrap wire**

Part No.	Color	Price
WD-30-B	(Blue)	**$6.49**
WD-30-Y	(Yellow)	**$6.49**
WD-30-W	(White)	**$6.49**
WD-30-R	(Red)	**$6.49**

REPLACEMENT WIRE (50 Foot Roll 30 AWG)

R30-B	(Blue)	**$3.95**
R30-Y	(Yellow)	**$3.95**
R30-W	(White)	**$3.95**
R30-R	(Red)	**$3.95**

3-Color Cut and Strip Dispenser

Same as WD-30. Includes 50 feet each of red, white and blue 30 AWG wire wrap wire all in one handy dispenser.

Part No.		Price
WD-30-TRI		**$9.49**
R-30-TRI	(Replacement Roll)	**$7.95**

"Clip and Strip" Tool

Strips 1" of insulation from 30 AWG wire. Insert wire, squeeze tool and pull wire through slot. Handy pocket eye. 1¼" x 1" x ⅝".

CAS-130. . . . $2.95

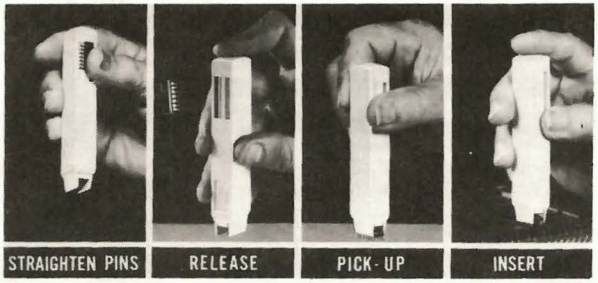
Wire Wrap Kit

- Battery Tool BW-630 (C-size batteries not incl.)
- Hobby Wrap Tool WSU-30M
- PC Edge Connector CON-1
- DIP/IC Extractor Tool EX-1
- DIP/IC Insertion Tool INS-1416
- PC Card Guides & Brackets TRS-2
- Mini-Shear with Safety Clip MS-20
- 14, 16, 24, and 40 pin DIP Sockets
- Terminals WWT-1
- Tri-color Wire Dispenser WD-30-TRI
- Hobby Board H-PCB-1

WK-5. . . . . $81.95

PRODUCTS

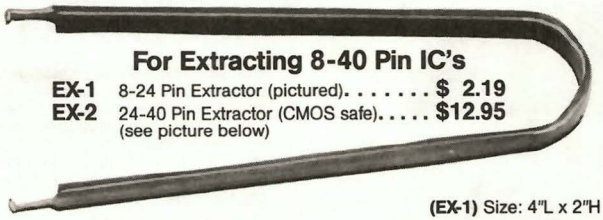
DIP/IC INSERTION TOOL



Inserts both 14 and 16 pin packages. Narrow profile permits work on closely-spaced items. Pin straightener built into handle.

Part No.	Description	Price
INS-1416	14-16 pin (pictured above)	$ 4.95
MOS-1416	14-16 pin CMOS safe (pictured at right)	$10.95
MOS-2428	24-28 pin CMOS safe (pictured at right)	$10.95
MOS-40	36-40 pin CMOS safe (pictured at right)	$11.95

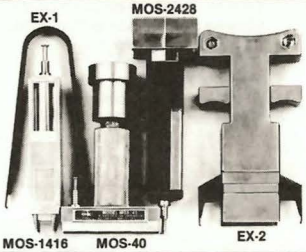
DIP/IC EXTRACTOR TOOL



For Extracting 8-40 Pin IC's

EX-1 8-24 Pin Extractor (pictured) . . . . . **$ 2.19**
EX-2 24-40 Pin Extractor (CMOS safe) **$12.95**
(see picture below)

(EX-1) Size: 4"L x 2"H



DIP/IC Inserter-Extractor Kit

Includes:
- MOS-1416
- MOS-40
- MOS-2428
- EX-1 and EX-2

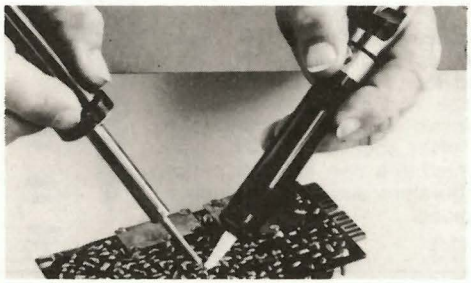
WK-7. . . . . $39.95

Battery Wire Wrap Tool

Wraps 30AWG pre-stripped wire on standard DIP sockets (.025"). Complete with built-in bit and sleeve for "modified" style wrap. Positive indexing and anti-overwrapping. Weighs only 11 ozs. Uses 2 "C" batteries (not included). Size: 6⅛"L x 6¼"H x 1¾"W.

Part No.	Description	Price
BW630	Wire Wrap Tool (with Bit and Sleeve)	$39.95
BT-30	30AWG Replacement Bit and Sleeve	$ 5.95

DESOLDER PUMP



- Low static all metal construction
- One-hand operation — self-cleaning
- Suction precisely regulated to protect circuitry
- Easily disassembled for cleaning
- Teflon tip — Replacement tips available
- Size: 7½"L x 3¼" dia.

Part No.	Description	Price
DP-1X	Desolder Pump	$11.95
DPT-1	Replacement Tips (2 tips)	$ 2.95

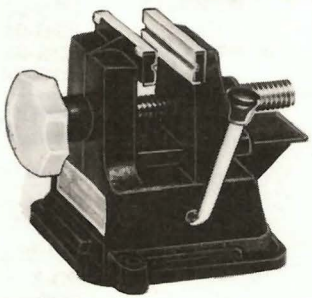
ELECTRIC DESOLDERING IRON

- **Self-contained suction power and heating element**
- **Economical • Lightweight—only 4 ozs. (113 grams)**
- **Compact size: 10¼"L (26cm)**
- **Replacement nozzles available**

Revolutionary new electric desoldering iron combines the ease and portability of a hand-held, manual desolder pump, with performance of an industrial desolder station. This unique AC powered compact tool features portable, one-hand desoldering eliminating the need for separate soldering iron and desolder pump. No shop air required. Essential for all tool kits, field service technicians, and repairmen, as well as production applications. Vacuum chamber is easily removed for cleaning or replacement. Tool is supplied with SAT-6-059 nozzle; diameter .059 inch (1.5mm).

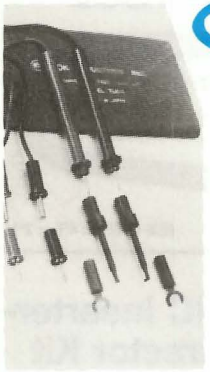
Part No.	Description	Price
SA-6	Desoldering Iron (w/SAT-6-059 nozzle)	$22.95
SAT-6-059	.059" Replacement Nozzle	$ 2.95
SAT-6-070	.070" Replacement Nozzle	$ 2.95

VACUUM VISE



Unique vacuum based light duty vise for precision handling of small components and assemblies. Rugged ABS construction. Jaws are 1½" wide, travel is 1¼" for maximum versatility. Also features screw lugs for permanent installation (mounting screws included). • Size: 3"L x 3½"W x 3"H • Weight: 6 oz.

VV-1 Vacuum Vise. $4.95



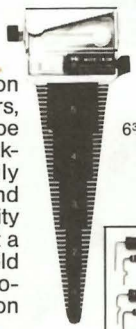
Universal Test Lead Kit

This universal test lead kit includes a pair of safety-designed test leads and an assortment of interchangeable tips for most measurement and testing applications. Plugs into standard 0.166" (4.22 mm) diameter banana jacks. Snap fit assembly. No soldering required.

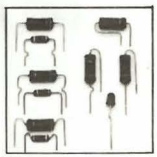
Kit contains: (9 items)
- **Pair of 48" (121.9 cm) test leads, banana plug on one end and std. probe on the other end**
- **2 standard micro hooks**
- **2 spade lug adapters**
- **2 replacement probe tips**
- **Reusable vinyl carrying pouch**

TLK-8. . . . . $7.95

Lead Bender and Crimper



Size: 6¾"L x 2⅜"H x 1"W

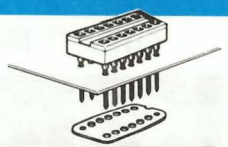


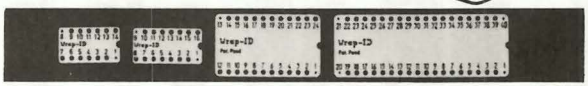
The new LB-100 handles all common axial components including resistors, diodes, and capacitors, and can be used on many radial and "TO" packages as well. This device is easily adjusted for both lead diameter and crimp size. It provides all the versatility of expensive automatic machines at a fraction of the price. May be hand-held or mounted in a vise. Ideal for prototype, laboratory, and light production applications.

LB-100. . . . . $15.95

Socket Wrap I.D.

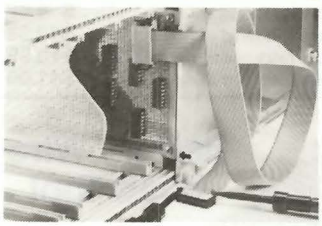
Greatly Simplify Your Wire Wrapping Needs!





Quick identification of pin numbers. Slips onto socket before wrapping. Easily write location, part number, function, etc.

Part No.	Package	Price	Part No.	Package	Price
8-ID	(10/pkg.)	$1.95	22-ID	(5/pkg.)	$1.95
14-ID	(10/pkg.)	$1.95	24-ID	(5/pkg.)	$1.95
16-ID	(10/pkg.)	$1.95	28-ID	(5/pkg.)	$1.95
18-ID	(5/pkg.)	$1.95	40-ID	(5/pkg.)	$1.95
20-ID	(5/pkg.)	$1.95	96-ID	(5/pkg.)	$1.95



24" Low Profile 16-pin Chip Clip Cable Assembly

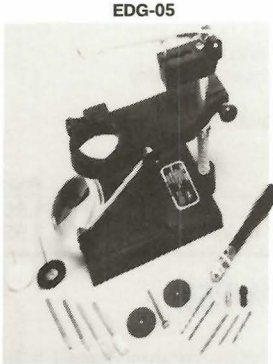
Facilitates 16-pin IC testing!

The LPCC-16 low profile chip clip was designed to facilitate the testing of 16-pin IC's under "in circuit" conditions. Requiring only .525" of clearance, the LPCC-16 is ideal for applications where standard chip clips will not fit (e.g., testing an IC on a board in a fully populated card cage).

Features: • Self-holding locking head • Padded release handles • Low clearance (.525") • One-hand operation • Numbered pins • Eliminates extension boards • Prevents shorts in board under test • Simplifies pin location • Dip plug allows connection of all 16 pins to test equipment simultaneously

LPCC-16. . . . . $13.95

EDG-05



Hardware in EDG-02

NEW!

EDG-04

EDG-03

EDG-01 (Included in EDG-02)

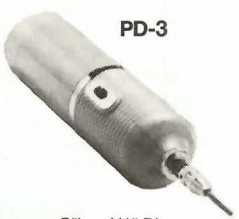
Electric Mini-Drill/Grinder Kit

This precision electric mini-drill/grinder is ideal for prototype work; P.C. board revision and redesign, solder removal; lead hole cleaning; grinding and polishing. Its compact size (4⅞" [12.4cm] minus the drill bit) allows the use of the drill in confined areas. The durable (20,000 RPM) tool will accommodate shank sizes of up to .126" (3.2mm). The EDG-02 kit includes: • EDG-01 Electric Mini-Drill/Grinder • 1 Mandrel • .074" (1.8mm) Drill • 3 Twist Drills: .079" (2mm); .059" (1.5mm); .039" (1mm) • 2 Stepped Shank Drills: .047" (1.9mm); .02" (6.51mm) • 2 Engraving Burrs • 3 Mounted Abrasive Stones • 1 Mounted Polishing Felt • 1 Mounted Nylon Brush • 2 Cut-off Wheels • 1 Finger Guard • 5 Collets

Flexible Shaft (EDG-04) — The 23.5" (60cm) flexible shaft easily attaches to the Precision Mini-Drill/Grinder offering extended range and delicate touch for precise electronic or industrial applications. Can be used with all of the accessories for cutting, polishing, grinding, removing burrs, drilling or engraving. • Flexible shaft • 23.5" (60cm) extension • 3 Collets

Part No.	Description	Price
EDG-02	Mini-Drill/Grinder (EDG-01) and 21 pcs. Hardware (see above).	$23.95
EDG-03	Wall Transformer for EDG-01 (necessary for operation).	$13.95
EDG-04	Flexible Shaft for EDG-01 (Mini-Drill/Grinder).	$ 7.95
EDG-05	Drill Stand for EDG-01 (5"L x 3¼"W x 9"H) (Magnifier not incl.). . . .	$13.95
EDG-Kit	Included in Kit: EDG-02, -03, -04, -05 (All the Above).	$49.95

PD-3



8"L x 1½" Dia.

STD-60

3⅛"L x 4⅝"H x 2"W

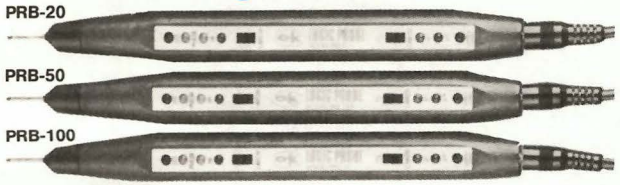
Portable Mini-Drill

This lightweight, versatile portable hand drill is suitable for most light drilling applications and is especially appropriate for circuit board drilling. The PD-3 runs at 2,500 RPM on 4 "AA" batteries (not included). It will accept drills from .019" to .060" diameter. Comes supplied with one .039" diameter drill bit. Optional stand holds drill firm for precision drilling.

Part No.	Description	Price
PD-3	Portable Mini-Drill.	$29.95
RDB-4	Replacement Bits (2 each .039" and 2 each .060").	$ 6.95
STD-60	Stand for PD-3.	$18.95

LOGIC PROBES, PULSER AND SHORTFINDER

Logic Probes



SERIES HIGHLIGHTS

- Over/under volt. indicators
- Reverse polarity protection
- Detachable power cord
- Replaceable tip
- Multi-family (DTL, TTL, MOS, ECL, CMOS)
- Hi, Lo and Pulse indication
- Circuit powered
- Latching memory

20MHz Logic Probe

SPECS: Maximum Frequency: 20MHz • Minimum Frequency: DC • Minimum Detectable Pulse: 25 nanoseconds • Logic Thresholds: TTL (Lo) +0.8V ± 0.1V, (Hi) +2.3V ± 0.2V • CMOS (Lo) 30% Vcc ± 10%, (Hi) 70% Vcc ± 10% • Input Impedance: 120K Ω • Operating Power Supply: +3V to +18V • Current @ Vcc = 5V: 6mA @ no load, 20mA @ max. load • Maximum Power Supply Range: 25V

PRB-20 (Replaces Global Part No. LP-1). **$22.95**

50MHz Logic Probe

SPECS: Maximum Frequency: 50MHz (80MHz typical) • Minimum Frequency: DC • Minimum Detectable Pulse: 10 nanoseconds • Logic Thresholds: TTL (Lo) +0.8V ± 0.1V, (Hi) +2.3V ± 0.2V • CMOS (Lo) 30% Vcc ± 10%, (Hi) 70% Vcc ± 10% • Input Impedance: 120K Ω • Operating Power Supply: +3V to +18V • Current @ Vcc = 5V: 6mA @ no load, 20mA @ max. load • Maximum Power Supply Range: 25V

PRB-50 (Replaces Global Part No. LP-2). **$44.95**

100MHz Logic Probe

SPECS: Maximum Frequency: 100MHz • Minimum Frequency: DC • Min. Detectable Pulse: 5 nanoseconds • Logic Thresholds: TTL (Lo) +0.8V ± 0.1V, (Hi) +2.3V ± 0.2V • CMOS (Lo) 30% Vcc ± 10%, (Hi) 70% Vcc ± 10% • Input Impedance: 120KΩ • Operating Power Supply: +3V to +18V • Current @ Vcc = 5V: 6mA @ no load, 20mA @ max. load • Maximum Power Supply Range: 25V

PRB-100 (Replaces Global Part No. LP-4). **$89.95**

Digital Pulser

- Replaceable Tip
- Output Pulse LED
- Repetition Rate Switch
- Trigger Output Terminal
- Trigger Input Terminal
- Ground Terminal

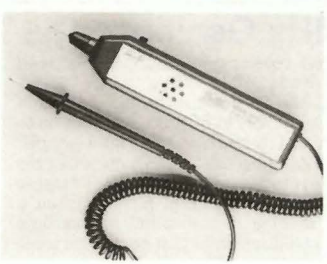
The **PLS-500 Digital Logic Pulser** is the ideal pulse source for troubleshooting digital logic. The PLS-500 outputs a pulse (or pulse train) to the suspect node to determine if that node is operating correctly. The PLS-500 can output a low (0.5Hz) frequency pulse or a higher (500Hz) pulse train at the flick of a switch. If the node is not powered by the host circuit the PLS-500 will drive the node as well as provide power to drive other related nodes. If the node is under circuit power the PLS-500 senses both the state (Hi or Lo) and the voltage and provides the correct voltage at sufficient power to drive the node into the opposite state. The PLS-500 can deliver a powerful 1000mA pulse and off state impedance is very high (10MΩ).

SPECS: Pulse Repetition Rate: 0.5Hz/500Hz • Pulse Width (Tip Output): 2μsec (at 1000mA load) • Maximum Output Current (Tip): 1000mA • Pulser Output Impedance ("On State"): 2Ω • Pulser Input Impedance ("Off State"): 10MΩ

• SYNC OUT (Trigger Out): Pulse Width @ 0, 5Hz: 100 msec (Lo) - 1900 msec (Hi) typical (95% Duty Cycle) • Pulse Width @ 500Hz: 1 msec. (Lo) - 1 msec (Hi) typical (50% Duty Cycle) • Output Current (Source): 4mA @ Vcc = +15V 2mA @ Vcc = +5V • Input Impedance: 100KΩ • Input Overvoltage Protection: ±120V (10 sec)

• EXT SYNC IN (Trigger In): Input Impedance:1MΩ • Maximum Input Voltage: ±120V (Continuous) • Maximum Input Current: 1.2mA • Input Frequency: DC – 100KHz • Operating Power Supply: +3.5V to +18V

PLS-500 (Replaces Global Part No. DP-1). **$44.95**



SHORTFINDER

- Detects shorts quickly and accurately
- Performs continuity checks
- Not "confused" by capacitors
- Two sensitivity settings
- Audible tone
- Long battery life (1 year)
- Shirt pocket portable

SPECS: Power: (1) 9V Battery (included) • Short sensitivity: (Hi) 0 to 1 Ohm – (Lo) 0 to 10 Ohms • Tone Frequency: (Hi) 3KHz + 10% – (Lo) 5KHz + 10%

SF-110 (Replaces Global Part No. SQ-1). **$44.95**

OK Industries Inc.

TEST INSTRUMENTS

See page 59 for 5 NEW BNC Cable Assemblies!

Model 512 Frequency Counter

The **Model 512** is a battery operated pocket-size frequency meter featuring a 20Hz to 200MHz measurement range, a high accuracy crystal timebase and an 8-digit LED display.

There are two ranges. Range A has a measurement capability of 20Hz to 10MHz and 4 gate times giving a resolution down to 0.1Hz. Range B has a measurement capability of 5MHz to 200MHz and 4 gate times giving a resolution down to 1Hz. The display reads out directly in kHz, with automatic decimal point positioning, and also has a low battery indication. Typical battery life is 10 hours from a 9V alkaline type and the meter can also be operated from an optional AC adapter (AC58104). Test leads not included • Size: 6.2"L x 3"W x 1.2"H • Weight: 6 oz.

Part No.	Description	Price
Model 512	Frequency Counter.	$144.95
CC58042	Carrying Case.	$ 9.95
AC58104	110V AC Adapter.	$ 16.95

Model 203 2MHz Function Generator

The new **Model 203 2MHz Function Generator** provides sine, triangle and square waveforms from 0.2Hz to 2MHz; external FM sweep; plus both TTL and variable 20V p-p 50Ω outputs. The Model 203 also includes variable DC offset and switchable −20 dB attenuation. External sweep capability is >1000:1 and the TTL output can drive up to 20 standard TTL loads.

Specifications include sine distortion of <0.5% to 200kHz and <1% to 2MHz; flatness ±0.2 dB to 200kHz, ±1 dB to 2MHz; and triangle linearity >99% to 200kHz

• All connectors are BNC • Unit is housed in a rugged, stackable ABS enclosure • Includes operations manual and AC adapter • Additional accessories: Carrying Case (CC58041) and Switchable Probe (SP311) available below • Size: 10.2″W x 6″D x 2″H • Weight: 2.6 lbs.

Model 203 Function Generator . . . $289.95

See next page for Probes, Prods and more!

Model 204 5MHz Pulse Generator

The **Model 204 5MHz Pulse Generator** provides pulses from 5Hz to 5MHz in 6 ranges and features 3 outputs: a dual-range 50Ω output with adjustable voltage 0.1 to 10V; a TTL output capable of driving 20 TTL loads; and a SYNC output for triggering applications. The Model 204 also includes a trigger/gate input and can operate in continuous, triggered, gated, and one-shot modes. An additional "square wave" mode fixes the mark:space ratio at 1:1 automatically.

Specifications include jitter <1%, duty cycle >60% and approaching 100% with complement, and rise/fall times typ. 10ns in 50Ω load.

• Housed in a compact, rugged and stackable ABS enclosure • Includes operations manual and AC adapter • Additional accessories: Carrying Case (CC58041) and Switchable Probe (SP311) available below • Size: 10.2″W x 6″D x 2″H • Weight: 2.6 lbs.

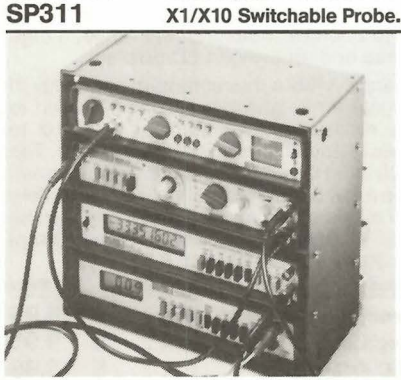
Model 204 Pulse Generator. $274.95

Model 1010 10MHz Oscilloscope

The **Model 1010** is a full-featured 10MHz oscilloscope. Enclosed in a rugged ABS housing, the Model 1010 offers DC to 10MHz bandwidth, 12 sensitivity ranges and 21 timebase ranges. Vertical sensitivity can be selected from 10mV/div to 50V/div, and timebase can be varied from 0.1 μsec/div to 0.5 sec/div. The "mini-scope" includes internal and external triggering with sensitivity of LI div internal and LIV external. Coupling modes include AC, DC, TV frame and TV line. Scope is selectable +/−. The unit also features a bright blue-white 1 x 1.5 inch display (5 horizontal x 4 vertical divisions) and includes a built-in calibration circuit as well as a full complement of adjustments.

• Battery or AC powered (not included) • Size: Very compact 10.2″W x 6″D x 2″H • Weight 2 lbs. • Includes operations manual

Part No.	Description	Price
Model 1010	**Oscilloscope. . . . . .**	**$384.95**
CC58041	**Carrying Case. . . . . .**	**$ 19.95**
AC58101	**AC Adapter. . . . . .**	**$ 16.95**
SP311	**X1/X10 Switchable Probe. . . . . .**	**$ 37.95**



The Bench Rack

Perfect for schools, R&D labs, QC areas and bench depot service work.

A wide variety of tests can be performed in a limited area on the bench with this unique bench rack. Each module of this "test system" has the added advantage of being a complete instrument ready to use separately on the bench or in the field. • Size: 10¾″W x 6″D x 10⅝″H • Weight: 16 lbs.

The **Model 2324R Bench Rack** includes the following products:

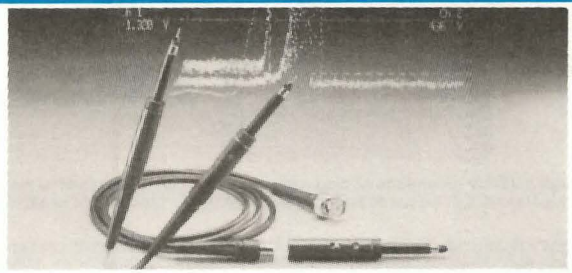
- MODEL 1010 10Mhz MINI-SCOPE
- MODEL 203 2MHz FUNCTION GENERATOR
- MODEL 510 200MHz MULTI-FUNCTION COUNTER
- MODEL 601 3½-DIGIT 0.1% ACCURACY DMM
- MODEL 58150 METAL RACK
- MODEL AC58101 AC POWER ADAPTER
- BATTERIES FOR ALL NON-AC POWERED UNITS

Four Instruments in a Compact Metal Rack!

Model 2324R Complete Rack Package. $1289.95

TEST PROBES AND ACCESSORIES

OK Industries Inc.



Standard Modular Oscilloscope Probes

- **Precise performance up to 100MHz Bandwidth**
- **Unique Modular Design**
- **Compatible with all Oscilloscopes**
- **Easily Replaceable Parts**
- **Low Cost Maintenance**
- **Quality Design and Production**

NEW!

With superior performance and complete instrument compatibility, the modular design provides substantially lower maintenance costs. Rigidly monitored throughout the manufacturing process, each probe is carefully packaged and includes the probe head, cable assembly and a full complement of probe accessories for the widest range of applications.

Part No.	Attenuation	Bandwidth	Cable Length (Meters)	Input Impedance R	Input Impedance C	Compensation Range	Max. Input DC*	Rise Time	Price
SP300	x 1	15MHz	1.2	1MΩ	45pF	Any Scope	600V	<16.0ns	$24.95
SP310	x 10	100MHz	1.2	10MΩ	16pF	10pF-47pF	600V	< 3.5ns	$32.95
SP311	x 1 x 10	10MHz 100MHz	1.2 1.2	1MΩ 10MΩ	40pF 17pF	Any Scope 10pF-47pF	600V 600V	<35.0ns < 3.5ns	$37.95

TPK400

TPK410

Universal Test Prod Kits

The modular design of the TPK400 series test prod kits provide superior ability to address the widest number of applications and also maintain peak performance by easily replacing damaged or misplaced parts. The TPK400 series adapts to any analog or digital meter with 4mm inputs assuring the highest standards of testing reliability.

All kits include:

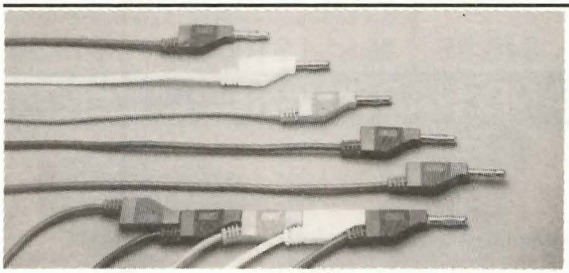
• 2 test prods with tips • 2 spring hooks • 2 stainless steel replacement tips (0.80mm) • 2 insulating tips • 2 alligator clips • 10 pcs.

The TPK410 includes all of the items above *PLUS:*

• Heat and tangle resistant silicone banana cables (1 black, 1 red; • Cable length (both): 1 meter • 12 pcs.

TPK400. . . . . $19.95

TPK410. . . . . $24.95



BCK500

Silicone Banana Cables

The highly supple silicone banana cable is the leading edge in cable material and construction. The silicone cables have a high heat resistance, maximize cable flexibility and are tangle free. Five bright colors are available for easy color coding. The rugged banana connectors are precision tooled for reliability and long use.

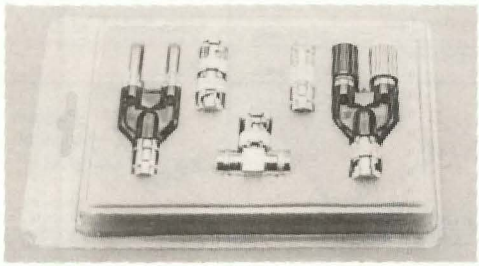
• Cable length: 1 meter • Quantity per package: 5

BCK500 Multi-Color Silicone Banana Cable Assembly Kit (Black, Red, Blue, Green, Yellow) (5 pcs.). . . **$33.49**

58411 Black Silicone Banana Cable Assembly (5 pcs.) . . **$33.75**

58412 Red Silicone Banana Cable Assembly (5 pcs.) . . . **$33.95**

BNC Adapter Kit

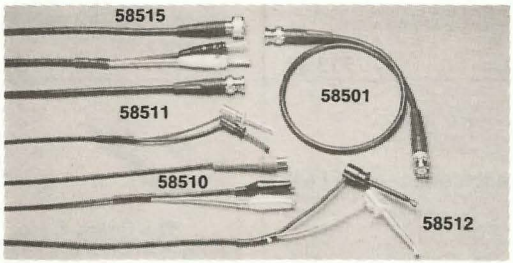


The ADK600 Adapter kit includes one each of the following:

58601 Binding post to BNC(M), 50 ohm
58602 Binding post to BNC(F), 50 ohm
58603 BNCT – Adapter F-F/M, 50 ohm
58604 BNC(F) to BNC(F), 50 ohm
58605 BNC(M) to BNC(M), 50 ohm
Quantity per Kit: 5

ADK600. . . . . $39.95

BNC Cable Assemblies



Part No.	Description	Price
58501	BNC(M) to BNC(M) RG58 A/U – 1 meter long.	$ 8.39
58510	BNC(M) to Alligator Clip RG174 – 1 meter long.	$10.75
58511	BNC(M) to Micro Hook RG174 – 1 meter long.	$14.75
58512	BNC(M) to Macro Hook RG174 – 1 meter long.	$14.95
58515	BNC(M) to Banana (4mm) RG58 – 1 meter long.	$10.95

hytek microsystems incorporated — 3½ DIGIT LCD DIGITAL PANEL METER

The HY6300 is a 3½ digit DPM (Digital Panel Meter) with .4" high LCD digits and balanced differential analog inputs in a rugged compact package. The heart of the meter is a Dual Slope Integrating Analog to Digital Converter capable of resolving an analog input to 1 part in 2000 (.05%). The integrating cycle includes three phases: the Auto-Zero Phase, the Signal Integrate Phase and the De-Integrate Phase, (3 readings per second). Using the laser trimmed 100.0mV reference, the HY6300 will accept a DC input voltage range of ±199.9mV with a 100uV resolution. Adding a shunt resistor allows the DPM to make current measurements as high as 1.999 Amp or as low as 100nA. Resistance measurements can be made taking advantage of the radiometric capability of this device. Application notes are included.

3 Meters in 1... Digital Voltmeter, Ammeter and Ohmmeter

hytek

FEATURES: • Low-cost 3½ digit DPM with LCD display • Low power requirement: 12mW • Balanced differential inputs • .4" high LCD digits • Capable of being powered by either a single 5VDC power supply or 9V battery • Low bias current (10pA typ) • Rugged, compact, water-tight package • High reliability hybrid design • Easy hook-up for VDC, ADC, and Resistance measurements. **SPECIFICATIONS:** • Power requirements: Either a 4.75 to 5.25 volt regulated power supply at 4.4mA typical applied to the +V and COM pins or a 7 to 10 volt battery at 1.3mA applied to the +V and −V pins • Size: 2½"L x ⅜"D x 1¼"H

HY6300 — **3½ Digit LCD Digital Panel Meter.** **$39.95**
(Includes meter, data sheet, spring clip and screw clamp mounting hardware, and blank labels)

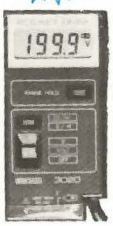
HY-001 — **Connector Kit.** . . . . . **$ 9.95**
(2 fully assembled 9 pin connectors with 4" of wire)

HY-002 — **Hostile Environment Connector Kit.** **$14.95**
(Same as HY-001 plus insulator boots and vacuum grease)

SOAR corporation — INSTRUMENTS

Pocket Personal Digital Multimeter

NEW



- **3½ digit LCD**
- **Auto/Manual Ranging**
- **Low Battery Indicator**

• Continuity Checker (<200 ohm) • Max. input: 700VDC; 550VAC (rms) • Input resistance: Approx. 5 Meg. ohm • DC Voltage: 2000mV-450V • AC Voltage: 2000mV-450V • Resistance: 200Ω to 2000KΩ • Includes Multimeter, case, batteries, probes and instructions • Size: 2⅛"W x 4⅛"D x ⅜"H

Model 3020. . . . . $29.95

Handheld Digital Multimeter

6 Function • 18 Range Auto 3½-Digit LCD

• Ranges: DC volts 0.1mV-1000V AC volts 1mV-750V • Resistance: 0.1Ω to 20MΩ • Auto-ranging • Fast continuity beeper • Low battery indication • Over range indication • Measuring mode: Integration mode • Size: 3"W x 1¼"H x 6¼"D

ME550. . . . . $49.95

Pen Type Digital Multimeter

- **Extended Ranges**
- **3½-Digit LCD**
- **Auto-Ranging**

• Extended Ranges: DC 200mV, 200Ω and 20MΩ • Ranges: DC Volts 0.1mV-500V — AC Volts 1mV-500V • Auto polarity and decimal • Large 3½-digit LCD display • Electronic data hold switch • Auto-ranging for easy, quick reading • Includes: 2 probe tips, alligator clip, soft case, batteries and manual

Model 3100. . . . . $49.95

INSTRUMENT CASES AND HARDWARE — VERTOX

The Handheld II Case

Includes hardware, predrilled top plate, precut blank front panel, and plastic lens. Features separate battery compartment with access door and integral tilt stand. Case front includes molded switch and display ports, matching precut front panel, and case top insert plate has predrilled connector ports. Size: 7.6"L x 3.75"W x 1.72"H. Weight: 7 oz.

CTH-2. . . . . $13.95

The Portable Case

Includes grey plastic case shell halves; separate battery compartment cover; 2 fitted switchplates; red transparent plastic front cover; power jack; (4) vinyl feet; mounting screws. Size: 7.75"L x 5.63"W x 1.75"H. Weight: 9 oz. Usable printed circuit board area 5.5" x 5.3" (not incl. battery compartment); inside height with a printed circuit board in place: 1.3".

CBP-1. . . . . $15.95

Instrument Clock Case

This case is an injection molded unit that is ideal for uses such as DVM, counter, or clock cases. It is a black case with red lens and includes a mounting bracket (for car dash), bezel, and 4 screws. Hole in back for power cord. Inside dimensions: 3¾"W x 4⅛"L x 1½"H. Outside dimensions: 3⅞"W x 4⅞"L x 1⅝"H. Lens dimensions: 3¼"W x ⅞"D. (Incl. Lens)

Instrument/Clock Case:
IN-CC. . . . . $4.95 each

Lens Only for IN-CC:
IN-LENS. . . . . $1.95 each

Instrument Case

This rugged black plastic case is ideal for housing meters, clocks, etc. The 4-piece case has moveable front and rear plates. Also includes 4 screws and 4 rubber feet. Inside dimensions: 4"W x 3⅞"L x 1⅞"H. Outside dimensions: 5¼₁₆"W x 5⅛"L x 2⅛"H. Lens dimensions: 4¹³⁄₁₆"W x 2"H.

PIC-1. . . . . $2.95

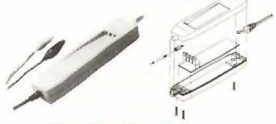
The Benchtopper Case I & II

Includes grey plastic case shell halves; black extenders (CTB-2 only); front and back fitted aluminum plates; 4 vinyl feet; mounting hardware; printed circuit board bosses .0437"H.

CTB-1 — Size: 7"L x 10"W x 3"H. Weight: 15 oz. Usable printed circuit board area 6.25" x 9.5"; inside ht. 2.75".

CTB-2 — Size: 7"L x 10"W x 4"H. Weight: 22 oz. Usable printed circuit board area 6.25" x 9.5"; inside ht. 3.75".

CTB-1. . . . . $18.95
CTB-2. . . . . $26.95



The Probe Case

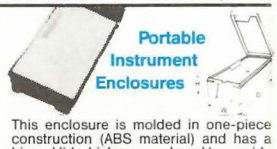
Incl. grey plastic case shell halves; threaded 1.5 inch probe tip; hexagonal-barrel female probe tip connector; 36 inch polarized two-wire power cord with red, black vinyl jacketed alligator clips attached, molded strain relief feature; precut perf board; mounting screws. Size: 5.8"L x 1.0"W x 0.7"H. Weight: 3 oz. Usable printed circuit board area 3.9" x 1.0".

CTP-1. . . . . $9.95

Portable/Bench Top Instrument Enclosures

This enclosure is constructed of impact-resistant ABS material. The enclosure is supplied with an aluminum front panel, multi-position tilt-stand handle and all assembly hardware. Inside dimensions: 8.2"W x 8.7"D x 2.5"H. Outside dimensions: 8.5"W x 9.0"D x 2.8"H. Maximum board size: 8.0"W x 8.5"D. Color: black.

BT9000. . . . . $17.95



Portable Instrument Enclosures

This enclosure is molded in one-piece construction (ABS material) and has a hinged lid which snaps closed to provide protection for any panel-mounted items. Case size: 3.2"W x 5.5"D x 2.0"H. Black.

PIE2030 Case Only. $2.79

Alum. Panel (5⁵⁄₁₆"L x 3¹⁄₃₂"W x ⅛" Thick): Fits inside PIE2030 (Aluminum)

AP2350. . . . . $2.49

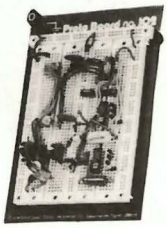
Grey Panel (5⁵⁄₁₆"L x 3¹⁄₃₂"W x ⅛" Thick): Recessed — fits inside PIE2030 (Plastic)

RP2380. . . . . $ .89

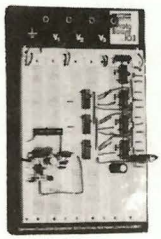
PROTO-BOARDS AND THE PROTO-TYPE BUILDER

The PB-10 Replaces PB-6, PB-100 and PB-101

PB10 . . . $13.95

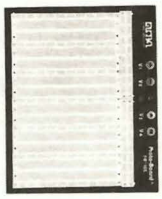


PB-102 $34.95



PB-103 $49.95

PB-104 $69.95



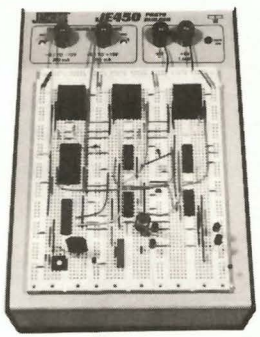
PB-105 $89.95

GLOBAL PROTO-BOARDS make designing, developing and testing electronic circuits easier and faster. Gone are the long hours of tedious soldering and resoldering. Components and wire leads can be inserted and removed without damage to either the component or the Proto-Board. Circuit changes can be made in minutes by simply moving components from one place to another. Recommended Wire: 122 Series 22AWG solid wire (page 47), WK-1 or WJ350 (page 62).

Part No.	Sockets	Bus Strips	IC Capac. (14-pin)	Terms.	Tie Points	Binding Posts	Back-plate	Length	Width	Height	Powered	Weight	PRICING 1-9	PRICING 10+
PB-10 (Pictured Above)	UBS-100	----	8	180	840	3	Plastic	7.0" 178mm	4.0" 102mm	1.4" 36mm	No	6.5 oz. 185 gm	**$13.95**	**$12.75**
PB-102 (Pictured Above)	2/QT47S	1/QT35B 3/QT47B	12	248	1240	1	Alum.	7.4" 187mm	4.5" 114mm	1.4" 36mm	No	10.0 oz. 284 gm	**$34.95**	**$31.75**
PB-103 (Pictured Above)	3/QT59S	1/QT47B 4/QT59B	24	450	2250	4	Alum.	9.0" 229mm	6.0" 152mm	1.4" 36mm	No	21.0 oz. 595 gm	**$49.95**	**$45.95**
PB-104 (Pictured Above)	4/QT59S	7/QT59B	32	612	3060	4	Alum.	9.8" 249mm	8.0" 203mm	1.4" 36mm	No	29.0 oz. 822 gm	**$69.95**	**$63.95**
PB-105 (Pictured Above)	6/QT59S	4/QT47B 7/QT59B	48	912	4560	5	Alum.	9.2" 234mm	11.4" 290mm	1.4" 36mm	No	29.0 oz. 822 gm	**$89.95**	**$81.95**
JE450 (Pictured Below)	3/QT59S	4/QT59B 1/QT47B	24	450	2250	4	Alum.	9.8" 248mm	6.6" 168mm	3.3" 83mm	Yes	5.5 lbs. 2.5 kg	**$119.95**	**$109.95**
PB-503 (Pictured Below)	3/UBS-100	2/QT59B	21	540	2720	4	Plastic	11.5" 292mm	13.0" 330mm	6.0" 152mm	Yes	7.0 lbs. 3.18 kg	**$249.95**	**$224.95**

NEW! PROTO-TYPE BUILDER AND STATION *NEW!*

Jameco ELECTRONICS



JE450 Solderless Proto-Type Builder

The JE450 Solderless Proto-Type Builder provides the user with a quick and efficient system for breadboarding electronic circuits without soldering. Configured with 3 power supplies, the JE450 is ideal for IC breadboarding of TTLs, CMOS, ELCs, microprocessors and op-amp circuits. Components and wire leads can be quickly inserted, removed and changed without the need for soldering or desoldering. The 3 power supplies incorporated in the JE450 provide the user unlimited use in prototyping circuits.

- Power Supplies, Regulated: 5V @ 1A, +5V to +15V @ .5A, −5V to −15V @ .5A
- Power: 120VAC, 60Hz fused **(Replaces Global PB-203 and PB-203A)**

Recommended Jumper Wire Kit: #WK-1 $12.95 WJ-350 $4.95

JE450 Solderless Proto-Type Builder. . . . $119.95

PB-503 Proto-board™ Station

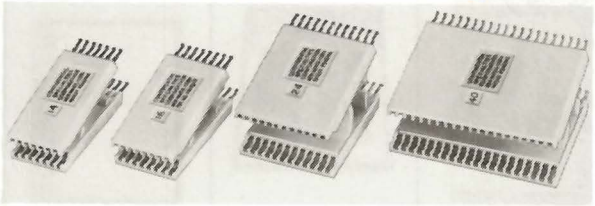
Increases Productivity!

PB-503 PROTO-BOARD station is a solderless breadboarding system that provides the conventional circuit design support functions plus the most frequently used circuit components in a single compact unit. All functions and components surround a large 3-socket breadboarding area and access is quick and convenient. The PB-503 eliminates the tedious rebuilding of redundant circuits and connections and permits concentration on the circuit being designed and tested.

• Function generator produces continuously variable sine, square and triangle wave outputs and TTL pulses • Triple power supply provides a fixed output of +5VDC @ 1A and two variable outputs, 5-15VDC @ 0.5A and −5VDC to −15VDC @ 0.5A, and eight LED logic indicators • Two debounced pushbuttons • Eight-position DIP switch • Two SPDT switches • 1K and 10K pots • Speaker for audio applications • Two BNC connectors for ready access to oscilloscope and other instruments • Powered from an external wall-mounted AC adapter.

PB-503. . . . . $249.95

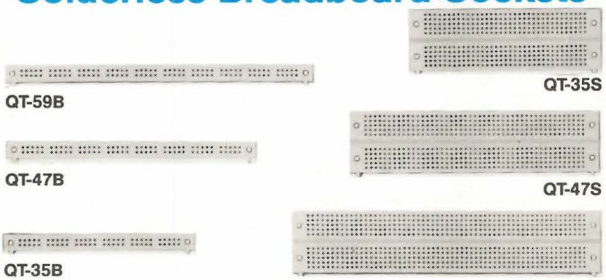
Proto-Clip® IC Test Clips



Proto-Clip® IC Test Clips are designed to facilitate temporary connections to dual in-line packaged components, including DIP ICs, networks, and relays. The special molded web hinge configuration provides positive contact even after thousands of uses.

Part No.	Description	Price
PC-14	14 Pin Proto Clip.	$ 4.49
PC-16	16 Pin Proto Clip.	$ 4.95
PC-24	24 Pin Proto Clip.	$ 8.19
PC-40	40 Pin Proto Clip.	$12.95

Solderless Breadboard Sockets



• ***Lifetime Unconditional Guarantee!***

Quick Test Solderless Socket Strips and Bus Strips provide expandable, reusable breadboarding areas for the designer. Lifetime unconditional guarantee.

Part No.	Length	Hole-to-Hole	Terminals	Unit Price
QT-35B	4.1"	3.8"	12	$1.95
QT-35S	4.1"	3.8"	70	$5.49
QT-47B	5.3"	5.0"	16	$2.29
QT-47S	5.3"	5.0"	94	$6.59
QT-59B	6.5"	6.2"	20	$2.49
QT-59S	6.5"	6.2"	118	$7.95

Universal Breadboarding Sockets

6.5"L x 2.2"W x .33"H — 3.4"L x 2.2"W x .33"H

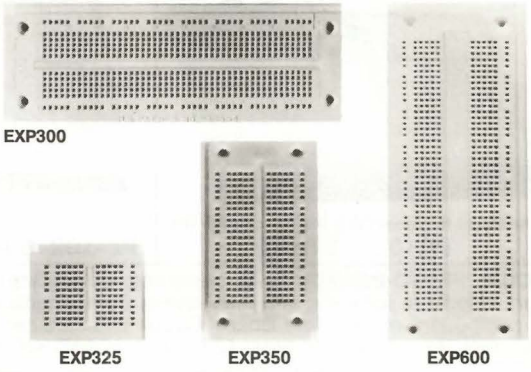
• ***Instant Circuit Construction*** • ***Lifetime Unconditional Guarantee!***

UBS-100 — Contains 64 pairs of 5 common spring contacts for principle circuit construction and 8 bus strips of 25 common contacts for power, ground, and input/output connection for a total of 840 contact points.

UBS-500 — Has all the features of the UBS-100 in a smaller size. Contains 33 pairs of 5 common contact points, totaling 430 contact points.

Part No.	Price
UBS-100	$10.95
UBS-500	$ 7.29

Solderless Breadboard Modules

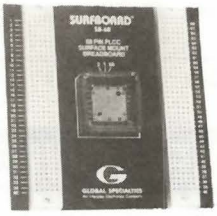


Experimentor Solderless Breadboards combine the advantages of Quick Test Socket and Bus Strip solderless contact arrangements into single, small, modular breadboards. Features molded interlocking edge rails on all four sides.

Part No.	Length	Width	Center Channel	5 Tie Point Terminals	Bus Strips	Price
EXP300	6.0"	2.1"	.3"	94(470)	2(80)	$7.29
EXP325	1.8"	2.1"	.3"	22(110)	2(20)	$3.19
EXP350	3.6"	2.1"	.3"	46(230)	2(40)	$5.29
EXP600	6.0"	2.4"	.6"	94(470)	2(80)	$9.19

EXP300PC	• Used for hard-wired versions of circuits • Ideal for small production runs.	$2.49

68-Pin Solderless SURFBOARD™



- **Quick and easy prototyping with surface-mount chip carriers**
- **Eliminates time-consuming soldering**
- **Accepts JEDEC Type A plastic leaded chip carrier (PLCC)**
- **Breadboard strips accept 20 to 26 gauge leads**
- **Lifetime gaurantee**

SURFBOARD™ provides the only quick, non-destructive and solderless method of prototyping circuits with surface-mount chip carriers. The system accommodates the PLCC (plastic leaded chip carrier), by far the most widely used surface-mount package for integrated circuits.

SB-68. . . . . *NEW!* $44.95

Wire Jumper Kit

- **Pre-Cut**
- **Pre-Stripped**
- **Pre-Formed**

Quick and Simple!

Clear Plastic Case with Cover — 8¼"L x 4½"D x 1 5/16"H

Use with QT Sockets, Bus Strips, EXP Board, Proto Boards, etc. Pre-cut, pre-stripped 22 AWG color-coded lengths. Includes 50 each of 0.2" length and 25 each of 12 lengths ranging from 0.3" to 5.0". Equivalent to AP Products Kit Part No. 923351.

WK-1. . . . . $12.95

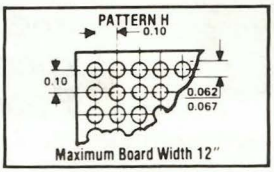
Wire Jumper Assortment Without Case

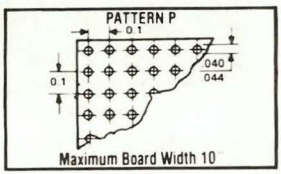
350 assorted wire jumpers, same description as WK-1, without case.

WJ-350. . . . . $4.95

PREPUNCHED INSULATING BOARDS

Vectorboard®

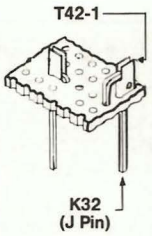


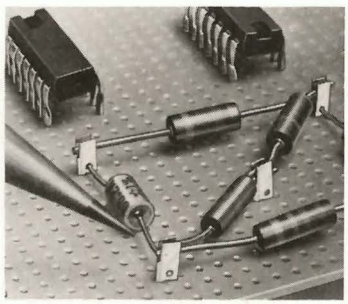


PART NO.	MATERIAL	HOLE PATTERN	HOLE SIZE (IN.)	LONG (IN.)	WIDE (IN.)	THICK (IN.)	PRICE 1-9	PRICE 10+
64P44XXXP	PHENOLIC	P	.042	4.5	6.5	1/16	$ 2.19	$ 1.95
169P44XXXP		P	.042	4.5	17.0	1/16	$ 4.95	$ 4.59
85H48WE	EPOXY GLASS	H	.062	8.5	4.8	1/16	$ 3.35	$ 3.15
64P44WE		P	.042	4.5	6.5	1/16	$ 2.79	$ 2.49
84P44WE		P	.042	4.5	8.5	1/16	$ 3.45	$ 3.09
169P44WE		P	.042	4.5	17.0	1/16	$ 6.79	$ 6.09
169P84WE		P	.042	8.5	17.0	1/16	$12.95	$11.79
169P44WEC1	EPOXY GLASS Copper Clad — One Side Only	P	.042	4.5	17.0	1/16	$ 8.95	$ 8.19

VECTOR PUSH-IN TERMINALS

Part No.	Tab Style	Material	Plating	Minimum 50 pcs.	100 pcs.	1000 pcs.
T28	.437" long with hole - for .062" holes	Phosphor Bronze	Tin (uses P91A Tool)	$1.75 lot	$2.49 C	$12.95 M
T42-1	.360" long with hole - for .042" holes	Copper Alloy	Tin (uses P149A Tool)	$1.69 lot	$2.39 C	$12.75 M
K32 (J Pin)	.650" long accessory to T42-1 or as wire wrap or patch cord post for .042" holes	Copper Alloy	Tin	$3.79 lot	$5.39 C	$27.95 M





VECTOR WIRING TERMINALS AND INSERTION TOOLS

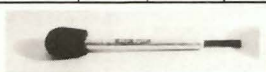
WIRE WRAPPABLE TERMINALS FOR .042" DIAMETER HOLES (SEE PICTURES BELOW)

Part No.		Material	Post Size	Height Above 1/16" Board	Length Below 1/16" Board	Insertion Tool Required	Price Per 50 pcs.		Price Per 100 pcs.		Price Per 1000 pcs.	
Tin	Gold						Tin	Gold	Tin	Gold	Tin	Gold
T44	T44-1	Copper Alloy	.025" sq.	.065	.530	A13	$2.19	$ 3.79	$2.95	$ 5.29	$16.95	$28.49
T46	T46-1	Copper Alloy	.028" sq.	.400	.530	P133A	$4.95	$ 8.25	$6.95	$11.49	$37.95	$61.49
T49	T49A	Copper Alloy	.025" sq.	.200	.560	P156	$4.25	$ 8.95	$5.95	$12.49	$31.95	$67.95
T49-1	T49A-1	Copper Alloy	.025" sq.	.200	.388	P156	$6.25	$11.49	$8.95	$15.95	$46.95	$85.95


P91A


P149A

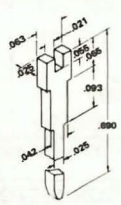

A13


P133A


P156

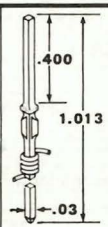
INSERTION TOOLS

Part No.	Terminal	1-9	10+
P91A	T28.	$5.95	$4.95
P149A	T42-1.	$8.95	$7.95
A13	T44/T44-1. . . .	$9.95	$8.95
P133A	T46/T46-1. . . .	$8.95	$7.95
P156	T49 Series. . . .	$6.95	$5.95



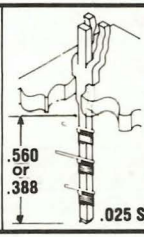
T-44 MINIWRAP Wiring Terminals

Terminal pushes in and locks in .042" diameter hole. Has .021" component slot and .025" square tail for wrapped wire connections. Overall length is .690". The T-44 Series is copper alloy, tin or gold plated. (Uses A13 Tool)



T-46 WRAP-POSTS Wiring Terminals

These double ended wrap-posts are inserted into .042" dia. circuit board holes such as "P" pattern Micro-Vectorbord with P133A insertion tool. The pins extend 0.40" above the board and 0.53" below 1/16" thick board. (Uses P133A Tool)

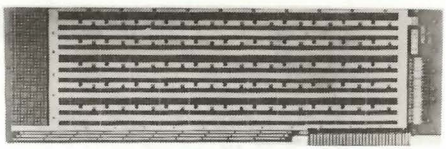


T-49 KLIPWRAP Wiring Terminals

Pushes into .042" diameter hole. Upper end holds leads .010" to .040" in clip action until soldered. T-49 is copper alloy, tin or gold plated. (Uses P156 Tool)

IBM AT (4617-1)

IBM AT, PC, and XT Expansion Boards



IBM PC, XT (4613-2)

Common Features: • Marked edge contact identification • Gold-plated edge contacts on 0.1″ centers • Power and ground buses terminate to connectors • Pads on board and bracket accepts DE9-, DA15-, DB25- or DC37-pin I/O connector • Holes are .042″ diameter on 0.1″ grid • Universal mounting bracket and card guide included

Features Unique to IBM AT only:
• Plugs into any IBM AT slot with dual connectors • Pads for mounting a dual row 0.1″ spaced header

3-HOLE SOLDER PADS AND BUSES

- Easy interconnections to 3-hole pads with wire and component leads
- Interposed power and ground buses on each side
- Buses are back to back and through connected

Part No.	Price
4613 (PC, XT)	$42.95
4617 (AT)	$44.95

BUSES ONLY

- Bare center area for unlimited component placement
- Power and ground buses on each side around edges
- One extra bus line along lower edge on each side for auxilliary power — (4613-1 only)

Part No.	Price
4613-1 (PC, XT)	$28.95
4617-1 (AT)	$29.95

VOLTAGE PLANES

• Full power and ground planes • Plated through holes
• Accepts .3″ and .6″ width DIP IC device

4613-2 (PC, XT) $39.95

PAD-PER-HOLE

• Plated through holes • Pads on 0.1″ grid for unlimited component placement
• Power and ground buses on each side around edges

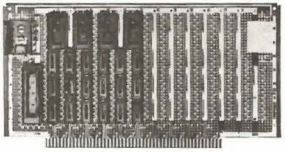
Part No.	Price
4613-3 (PC, XT)	$39.95
4617-3 (AT)	$42.95

CARD EXTENDERS

• 31/62 contacts on .100″ centers • Extender size: 3.18″W x 5.70″H
3690-22 (PC, XT) $29.95

• 18/36 and 31/62 contacts on .100″ centers • Extender size: 6.70″W x 5.60″H
3690-26 (AT) $49.95

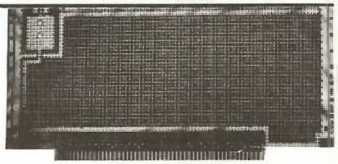
S100 (IEEE696) PLUGBOARD NO. 8800V



VOLTAGE PLANES — The board can hold 2 40-pin DIPs, 8 24-pin DIPs and 36 14- or 16-pin DIPs. Power is distributed to each DIP location by heavy copper-tinned power and ground planes on opposite board sides for low impedance. Has prewired regulator circuit and 2 heat sink provisions. Use R681-1 or R681-2 connector. Includes heat sinks, mounting hardware, layout paper for each side, and instructions. For wire-wrapping.

8800V $23.95

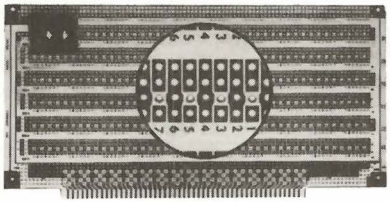
S100 (IEEE696) PLUGBOARD NO. 8801



PAD-PER-HOLE AND BUSES — Great flexibility — ideal for mounting wrap post tail sockets or components by tack soldering. Mounts 80 16-pin DIPs. Individual tinned square pads surround holes. Heavy tinned power and ground buses are provided on board periphery, and 1 provided regulator position has prewired power and ground connections. Use R681-1 or R681-2 connector. Includes heat sink and mounting hardware. For soldering or wire-wrapping.

8801 . . . . . $26.49

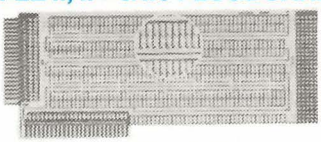
S100 (IEEE696) Plugboards



Mount DIP devices anywhere on plugboards in pre-punched 0.042″ diameter holes. 50/100 contacts on .125″ centers. Heavy tinned buses back-to-back provide good distributed capacitance. Boards measure 10″W x 5.313″H. Furnished with 1 heat sink, 2 regulator positions — one being pre-wired. Install wrap post sockets and wire.

Part No.	Description	Price
8804	Voltage Planes	$26.49
8801-1	Contacts only	$16.95
8801-6	Pad-Per-Hole & Buses	$31.95

APPLE II, II+ & *IIe* PLUGBOARDS



A peripheral interface board, plug compatible with Apple II, II+ and *IIe*, provides many features not available on the manufacturer's own boards. For I/O peripheral interfacing, experiments, or memory expansion. Mounts 22 16-pin DIPs. .042″ diameter holes on .1″ grid. Edge contacts: one 50-pin on .1″ centers for chassis connection; one 40-pin on .1″ centers for ribbon cable connection. Size: 7.7″ x 3.06″ x 1/16″. For soldering or wire-wrapping.

4609 . . . . . $24.95

APPLE INTERFACE BOARD

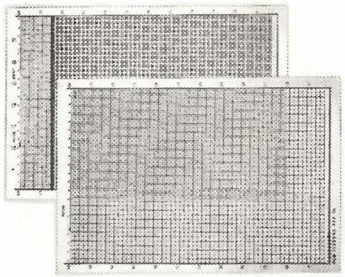
• Similar to the 4609 except no bus circuitry • Contacts only • Permits maximum freedom of component placement.

4609-1 . . . . . $19.95

EXTENDER BOARD FOR APPLE PLUGBOARD

3690-24 . . . . . $35.95

CIRCBORD - No. 8007



• Ideal for high frequency or analog circuit construction
• Wire by wrapping, soldering or solder-thru pencil wiring
• Patterned on both sides with pad-per-hole on one side, clearance-hole ground plane on the other side • Universal I/O area for mounting any type board connector
• Size: 4.5″ x 6.5″ x .062″ epoxy glass .042″ diameter holes on .1″ grid

8007 . . . . . $14.49

Unless otherwise noted, S-100 boards are 10.0″W (254mm) x 5.3″H (135mm) and have 50/100 nickel plated gold flashed contacts spaced 0.125″ (3.2mm) centers and 0.042″ (1.1mm) diameter holes on 0.1″ (2.5mm) grid for DIP mounting.

MATING CONNECTOR • 50/100 contacts • Wire-Wrap • .125″ spacing • 3-level
R681-1 3-Level (⅝″ Contact Length) $6.95

MATING CONNECTOR • 50/100 contacts • Wire-Wrap • .125″ spacing • 1-level
R681-2 1-Level (¼″ Contact Length) $6.35

Jameco ELECTRONICS General Purpose Prototype PC Boards Vector

Ideal for Component Assembly, Testing, Wire Wrapping and Point-to-Point Wiring

A fresh new idea innovated into all of Jameco's new Proto PC Boards...Jameco's Proto PC Boards feature a silkscreened legend on the component side of the board. The legend depicts the foil pattern or hole coordinate for the solder side of the board. Assembly time is not only reduced but relocation of components due to incorrect inserting is minimized. Proto Board materials are laminated glass epoxy .062" thick 2 oz. copper clad with a solder tin finish. All holes are .042" dia. on .10" x .10" grid pattern.

NEW

JE401 Proto PC Board
6½" Single-Sided 3-Hole Pad Pattern

- Single sided pads and patterns
- Convenient interlaced power and ground bus foil pattern
- Each oval pad has 3 holes
- Ideal for TTL Devices
- Mounts up to (20) 16-pin DIPs
- Size: 4.5" x 6.5"
- Drilled holes: .042" dia. (2360 holes)

JE401 (Equivalent to Vector 8001). **$9.95**

NEW

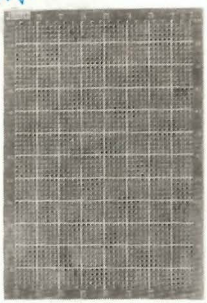
JE403 Proto PC Board
6½" Single-Sided Power and Ground Buses

- Single sided pads and patterns
- Convenient interlaced power and ground bus foil pattern for IC's of .3", .6" and .9" width
- Mounts up to (35) 16-pin DIPs
- Ideal for TTL Devices
- Size: 4.5" x 6.5"
- Drilled holes: .042" dia. (2360 holes)

JE403 (Equivalent to Vector 8002). **$9.95**

NEW

JE405 Proto PC Board
6½" Single-Sided General Purpose Board



- Single sided pads
- One drilled hole per pad
- Excellent general purpose use for IC's and discrete components
- Mounts up to (55) 16-pin DIPs
- Accommodates soldering or wire wrapping of leads
- Size: 4.5" x 6.5"
- Drilled holes: .042" dia. (2360 holes)

JE405 (Equivalent to Vector 8003). **$9.95**

NEW

JE407 Proto PC Board
13½" Double-Sided General Purpose Board

- Double sided pads plated thru holes
- One drilled hole per pad
- Excellent general purpose use for IC's and discrete components
- Mounts up to (140) 16-pin DIPs
- May be cut up for separate use
- Size: 5.00" x 13.25"
- Drilled holes: .042" dia. (6063 holes)

JE407 (Equivalent to Vector 8006). **$19.95**

NEW

JE409 Proto PC Boards
6½" Edge Connector (.156") Board

- Drilled holes without pads
- Gold-plated edge connector on .156" centers
- Mounts up to (20) 16-pin DIPs
- Connector fingers: 22 contacts (each side), 44 total on .156" centers
- Size: 4.5" x 6.5" (including connector fingers)
- Drilled holes: .042" dia. (2257 holes)
- Mating connector: 22/44SE edge connector

JE409 (Equiv. to Vector 3662). . . . . **$ 9.95**

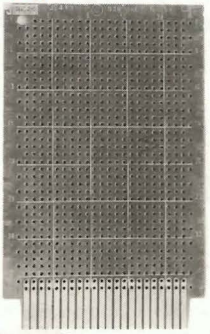
3677-2 Same as JE409 except Vector version features 3-Hole Solder Pads/Buses. . . . **$13.95**

22/44SE Mating Connector for JE409 and 3677-2. . . . . **$ 1.95**

NEW

JE413 Proto PC Boards
4½" Edge Connector (.100") Board

Commodore Compatible!



- Drilled holes without pads
- Gold-plated edge connector on .100" centers
- Mounts up to (15) 16-pin DIPs
- Connector fingers: 22 contacts (each side), 44 total on .100" centers
- Board fits directly in cartridge slot of Commodore C-64
- Size: 2.7" x 4.5" (including connector fingers)
- Drilled holes: .042" dia. (840 holes)
- Mating connector: 122/44 edge connector

JE413 (Equiv. to Vector 3795). . . . . **$ 7.95**

3795-1 Same as JE413 except Vector version features 3-Hole Solder Pads/Buses. . . . **$13.49**

122/44 Mating Connector for JE413 and 3795-1. . . . . **$ 2.49**

KEYPADS

HI-TEK 14-Key Numeric Keypad

- Mechanical SPST switching
- Charcoal grey keycaps
- Mounted on PC board
- Matches Stackpole K-62 keyboard (below)
- Fits DTE-8 enclosure (see page 67)
- Size: 5″L x 3″W x 1½″H
- Pin-out available

Part No.	1-9	10+
K14	$19.95	$18.49

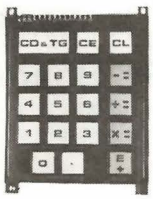
Part No.	Description	1-99	100-999	1000+
K-CAP	Blank Key Cap (.710″ sq. 13° tilt)	$.69	$.55	$.39

Toptronics 19-Key Hexadecimal Keypad

- Mechanical SPST switching
- Charcoal grey keycaps
- Matches Stackpole K-62 keyboard (below)
- Fits DTE-8 enclosure (see page 67)
- Size: 3″L x 3¾″W x 1½″H
- Data sheet available

Part No.	1-9	10+
K19	$19.95	$18.49

Part No.	Description	1-99	100-999	1000+
K-CAP	Blank Key Cap (.710″ sq. 13° tilt)	$.69	$.55	$.39



WILD ROVER CORP

CALCULATOR KEYPADS

WILD ROVER CORP

Molded keypad assembly provides the user unlimited applications for numeric keyboard entry requirements. User may also alter the unused keypads for special key-in command requirements. No specs available.

2¾″L x 3½″W x ½″H
17-Key 4 Function

2,000 In Stock

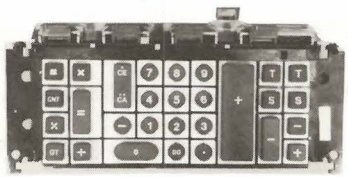
	1-9	10+
K17 (17-Key)	$2.75	$2.49

2 13/16″L x 3½″W x ½″H
18-Key 5 Function

800 In Stock

	1-9	10+
K18 (18-Key)	$2.95	$2.75

29-Key Keyboard



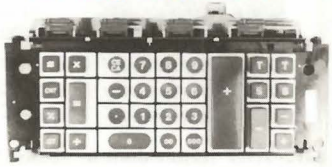
ALPS KEYBOARDS

These ALPS keyboards have 4 switches: one 7-position decimal switch; two 2-position switches (one being on/off); and one 3-position switch. Mechanical SPST switch has a 22-pin edge card connection. Includes pin-out diagram for each keyboard. Size: 9¾″L x 4½″W x 1¾″H.

6,000 In Stock

	1-9	10+
KB297040 (29-Key)	$2.29	$1.75

30-Key Keyboard



1,800 In Stock

	1-9	10+
KB297043 (30-Key)	$2.49	$1.95

UNENCODED QWERTY KEYBOARDS

MITSUMI 54-KEY KEYBOARD

- Unencoded all-purpose QWERTY keyboard • SPST key-switches • 20-pin ribbon cable connection • Low profile keys • Features: cursor controls, caps, function, control, enter and shift keys • Color (keycaps): grey • Size (including mounting plate): 13⅛″L x 4¼″W x ¾″H • Weight: 1 lb. • Fits in DTE-14 enclosure (see page 67) • Data sheet included

Part No.	Description	1-9	10+
KB54	Fixed Wire Matrix ***(650 In Stock)***	$5.95	$4.95
KB54-1	Alterable Matrix ***(200 In Stock)***	$8.95	$7.95

STACKPOLE 62-KEY KEYBOARD

- The right keyboard for your standard or custom keyswitch/keyboard requirements • Unencoded all-purpose QWERTY keyboard • Charcoal grey keycaps • Mechanical SPST switching • Fits into DTE-14 enclosure (see page 67) • Size: 13″L x 3¾″W x 1½″H • Weight: 1 lb. • Data sheet available

	1-9	10+
K-62	$31.95	$29.95

Part No.	Description	1-99	100-999	1000+
K-CAP	Blank Key Cap (.710″ sq. 13° tilt)	$.69	$.55	$.39

UNENCODED & ASCII ENCODED KEYBOARDS

ATTENTION SCHOOLS AND HOBBYISTS!

Top Manufacturers!

• CHERRY • MICRO SWITCH • KEYTRONICS

Large Selection of Encoded and Unencoded Computer Keyboards

These computer keyboards can be used for experimental purposes, special school projects, or even spare parts (e.g. keyswitches, keycaps, chips, etc.). Minimum of 68 keys. Serial and parallel interfaces. Many have separate numeric and cursor keypads. Top manufacturers includes Cherry (capacitive keyswitching), Micro Switch (Hall Effect switching), and Keytronic (SPST and capacitive switching). Sizes and styles will vary. No specs. available.

	1-9	10+
KB-MISC.	**$6.95**	**$5.95**

Hi-Tek 113-Key ASCII Encoded Keyboard

• 7-bit serial ASCII • Numeric keypad • Auxiliary keypad • Onboard 5V regulator • Hall Effect switching • Shift, Shift-Lock and CTRL signals • User definable function keys • Key repeat • Outputs short tone when a key is depressed • 6-pin modular connector (mates with KB-MOD assembly below) • Size: 20¼"L x 6⅜"W x ⅞"H • Color (keys): grey/white • Fits DTE-22 enclosure (below) • Data included

	1-9	10+
KB113 *(3400 In Stock)*.	**$9.95**	**$8.95**

MODULAR KEYBOARD CABLE ASSEMBLY

	1-9	10+
KB-MOD • Cable mates with KB113 pictured above • Connector (both ends) 6 pin - ⅜"W • 6 feet • Shielded • Black.	**$4.95**	**$3.95**

All-Purpose QWERTY!

60-Key Unencoded Stackpole Keyboard

• SPST mechanical keyswitches 8x10 Matrix • 18-pin female ribbon cable connection • Keyboard mounted on sturdy PC board • Color (keys): tan, brown, red and blue • Size: 12"L x 5 1/16"W x 1½"H • Fits DTE-14 enclosure (below) • Spec. included

	1-9	10+
KB60 *(1400 In Stock)*.	**$8.95**	**$7.95**

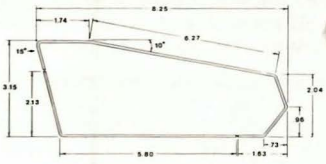
74-Key ASCII Cherry Keyboard

• 7-bit parallel ASCII • Full Upper Case, Full Lower Case except l, m, n, o and p • Cursor keypad • SPST mechanical keyswitches • 26-pin header connector • Color: white • Size: 18"L x 6¼"W x 1¼"H • Fits DTE-22 enclosure (below) • Spec. included

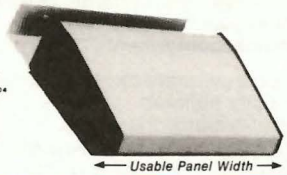
	1-9	10+
KB8201 *(1100 In Stock)*.	**$12.95**	**$11.95**

KEYBOARD ENCLOSURES

UNIVERSAL COMPUTER KEYBOARD ENCLOSURES



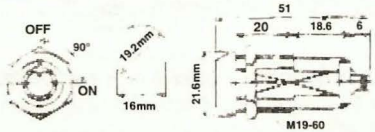
TOP AND BOTTOM PANEL OUTLINE



• Construction: The "DTE" Blank Desk-Top Keyboard Enclosures are designed for easy modification for today's computer equipment • High-strength epoxy molded end pieces in mocha brown finish • Sliding rear/bottom panel for service and component accessibility • Top and bottom panels .080" thick aluminum alodine type 1200 finish (gold tint color) for best paint adhesion after modification • Vented top and bottom panels for cooling efficiency

		1-9	10+
DTE-8	**Usable Panel Width 7.5"**.	**$29.95**	**$28.95**
DTE-11	**Usable Panel Width 10.13"**.	**$33.95**	**$31.95**
DTE-14	**Usable Panel Width 13.50"**.	**$35.95**	**$33.95**
DTE-22	**Usable Panel Width 21.375"**.	**$39.95**	**$37.95**

COMPUTER KEYLOCK SWITCH

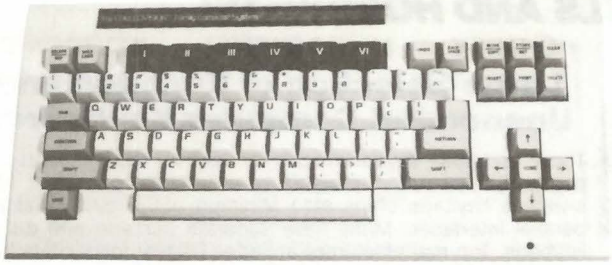


SPST ROUND KEYLOCK SWITCH (Shunt Type)

• Key removable from 2 positions
• Rated: 3A/125VAC • Two keys included per set

	1-9	10+
KS-1B	**$4.95**	**$4.49**

ENCODED KEYBOARDS



Coleco 75-Key ASCII Encoded Keyboard and Case

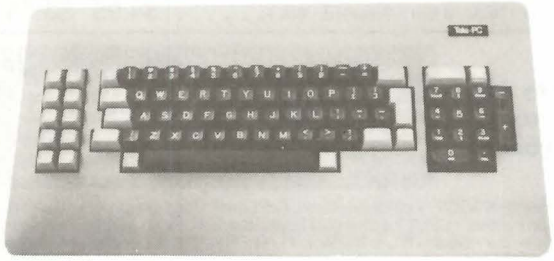
The KB75 ASCII Encoded Keyboard was originally designed for the Adam Computer • 8-bit serial output • 21 user-defined keys • 6-pin (3⁄8"W) modular connection (connector assembly included) • Color: Beige • Size: 15"L x 6½"D x 2½"H • Weight: 3 lbs. • No spec available

KB75 *(1300 In Stock)*. **$9.95**

Televideo 111-Key ASCII Encoded Keyboard and Case

The KB111 (Televideo TS1602G) is a 111-key 7-bit serial ASCII type keyboard with features such as an on-board 5V regulator, user-definable function keys, separate numeric keypad and a key repeat function. It outputs a short tone from the on-board miniature speaker each time a key is depressed. Serial output data signal includes separate bits for Shift, Shift Lock, and CTRL keys. Serial baud rate is 9600 baud (4800Hz), no parity. The KB111 also features a highly desirable case with palm rest. • 6-pin modular connector (mates with KB-MOD assembly—see page 67) • Color (Keyboard): black/grey (Case): black/white • Size: 18"L x 9¼"W x 2½"H • Data included

KB111 *(350 In Stock)*. **$19.95**

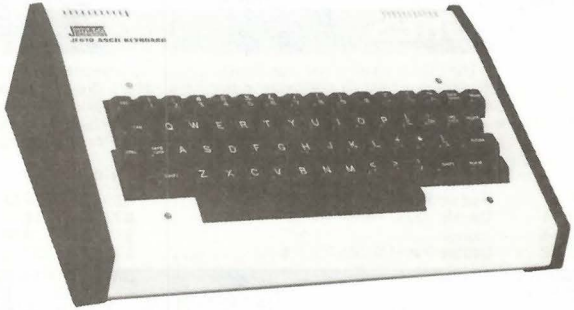


Televideo 83-Key Encoded Keyboard and Case

IBM Compatible!

The KB83 (Televideo Tele-PC) has a similar layout to the original IBM PC keyboard • 83 keys • Highly desirable case with palm rest • Keyboard reset • Clock output • User definable function keys • Color (case): grey/white • Size: 18½"L x 9"W x 2¾"H • Complete with cable and data • ***JUST PLUG IN!***

KB83 *(1500 In Stock)*. **$29.95**



JE610 ASCII Encoded Keyboard Kit

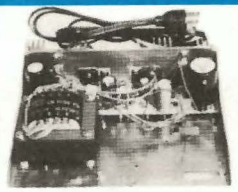
The JE610 ASCII Keyboard Kit can be interfaced into most parallel output computer systems. The Kit comes complete with industrial grade keyboard switch assembly (62 keys), IC's, sockets, connector, electronic components and a double-sided printed circuit board.

• 60 keys generate the 128 characters, upper and lower case ASCII set • Fully buffered • 2 user-definable keys • Caps lock for upper-case-only alpha characters • Utilizes a 2376 (40-pin) encoder read-only memory chip • Outputs directly compatible with TTL/DTL and MOS logic levels • Parallel output • Easy interfacing with a 16-pin DIP or 18-pin edge connector • Power Requirement: +5V @ 150mA and −12V @ 10mA • Size: 13¼"L x 6½"W x 1½"H (JE610 Kit)

JE610/DTE-AK **ASCII Encoded Keyboard Kit and Case** *(pictured)*. **$114.95**

Part No.	Description	Price
JE610 Kit	62-Key Keyboard, PC Board and Components (case not included).	$74.95
K62	62-Key Keyboard (Keyboard only) See page 66 for detailed description.	$31.95
DTE-AK	(Case only — 14¼"W x 8¾"D x 3¼"H).	$47.95

POWER SUPPLIES



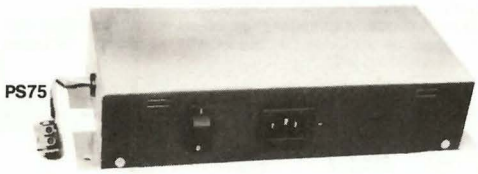
+ 5VDC @ 3A
− 5VDC @ 200mA
+12VDC @ 2.9A
+12VDC @ 1A
+18VDC @ 1A

Coleco Linear Power Supply

• Input: 120VAC @ 60Hz • Output (9-pin D-Subminiature connection): −5VDC @ 200mA; +5VDC @ 3 amps; +12VDC @ 2.9 amps; +12VDC @ 1 amp (On-board 4 pin connector): +5VDC @ 3 amps, +12VDC @ 2.9 amps; and +18VDC @ 1 amp unregulated • Spike protection • On/off switch • 3-prong power cord incl. • 9-pin D-Subminiature cord included • Size: 9″L x 7½″W x 3¼″H • Wt.: 7 lbs. • Data incl.

PS72559 *(5000 In Stock)*. **$14.95**

GI PS35	Ceag PS75
+ 5VDC @ 5.5A	+5VDC @ 5.5A
+12VDC @ 0.4A	+12VDC @ 4A
−12VDC @ 0.3A	−12VDC @ 0.3A



General Instrument and Ceag Switching Power Supplies

NEW!

• Input: 90-135VAC @ 47-440Hz • Both enclosed in cases with plug-in connectors • PS75 includes switch and 3-prong male outlet (pictured) • Data incl.
• Size: PS35 − 9½″L x 3½″W x 2″H (includes mounting plate) — ***11,500 In Stock***
PS75 − 9⅝″L x 4″W x 2″H (includes mounting plate) — ***4,000 In Stock***
• Weight: PS35-2 lbs. PS75-3 lbs.

		OUTPUTS			
Part No.	Power	1	2	3	Price
PS35	35W	+5VDC @ 5.5A	+12VDC @ 0.4A	−12VDC @ 0.3A	**$19.95**
PS75	75W	+5VDC @ 5.5A	+12VDC @ 4A	−12VDC @ 0.3A	**$24.95**

+ 5VDC @ 6A
+12VDC @ 1.5A
+12VDC @ 2.1A
−12VDC @ 0.25A

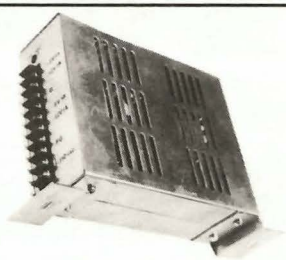
ASTEC Switching Power Supply

NEW!

• Input: 115VAC @ 60Hz/230VAC @ 50Hz • Output: +5VDC @ 6A, +12VDC @ 1.5A, +12VDC @ 2.1A, −12VDC @ 0.25A • Enclosed in case • Output thru 14-pin male connector • Size: 8″L x 4⅜″W x 2⅜″H • Weight: 3 lbs. • Data incl.

PS9335 *(1000 In Stock)*. **$29.95**

OVER 15,000 SOLD!



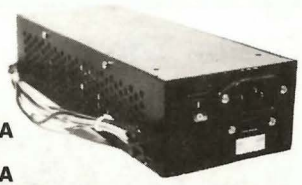
+ 5VDC @ 5A
− 5VDC @ 1A
+12VDC @ 1A
−12VDC @ 1A

Peak Power 4-Channel Switching Power Supply

STANDARD STOCKED ITEM

• Microprocessor, mini-computer, terminal, medical equipment and process control applications • Input: 90-130VAC @ 47-440Hz • Output: +5VDC @ 5 amps, −5VDC @ 1 amp; +12VDC @ 1 amp, −12VDC @ 1 amp • Line Regulation: ±0.2% • Ripple: 30mV peak-to-peak • Load Regulation: ±1% • Stability: 0.1% after 8 hours • Overcurrent Protection: 110-130% automatic current limiting • Adjustment: 5V main output ±10% • Cooling Method: Convection cooled • Weight: 1½ lbs. • Size: 6⅜″L x 1⅞″W x 4 15/16″H • Data included

FCS-604A. **$39.95**



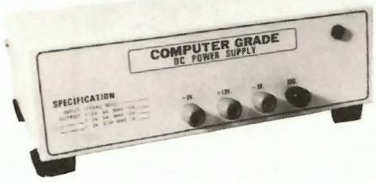
+ 5VDC @ 4A
− 5VDC @ 0.5A
+12VDC @ 1A
−12VDC @ 0.5A

Peak Power Switching Power Supply for Apple II, II+ and *IIe*™

STANDARD STOCKED ITEM

• Can drive four floppy disk drives and up to eight expansion cards • Short-circuit and overload protection • Fits inside Apple™ computer • Fully regulated +5V @ 4 amp, +12V @ 1 amp, −5V @ 0.5 amp, −12V @ 0.5 amp • Apple-type plug in power cord included • Size: 9⅞″L x 3½″W x 2¼″H • Wt: 2 lbs. • Data included

KHP4007. . . . . **$34.95**



+5VDC @ 6A −5VDC @ 0.5A +12VDC @ 6A

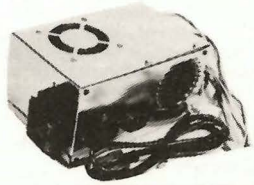
Coleco Linear Power Supply

NEW!

• Great bench supply for test equipment or can be used for powering disk drives • Power on/off switch and front panel LED indicator • Ventilated case for efficient cooling • Banana connectors for all three voltages and ground • Input: 115VAC 60Hz • Regulated +5VDC @ 6 amps/max. 10 amps, +12VDC @ 6 amps/max. 10 amps, −5VDC @ 0.5 amp/max. 1 amp • 3-prong power cord included • Color: Beige • Size: 9 3/16″L x 7½″W x 3 5/16″H • Weight: 8 lbs.

PS72C. **$39.95**

UPGRADE YOUR IBM!



+ 5VDC @ 15A
− 5VDC @ 0.5A
+12VDC @ 4.2A
−12VDC @ 0.5A

Peak Power 130 Watt Power Supply for IBM PC/XT or Equivalent

STANDARD STOCKED ITEM

• Input: 100V-130V @ 47Hz • Output: +5VDC @ 15 amp, −5VDC @ 0.5 amp, +12VDC @ 4.2 amp, −12VDC @ 0.5 amp • Plug compatible connectors • Fits into IBM PC • Size: 9½″L x 5½″W x 4⅝″H • Weight: 6 lbs. • Data included

IBM-PS. **$69.95**

JAMECO QUALITY KITS

6-Digit Clock Kit

FEATURES:
• 6 digit LED display x .3"H • Board voltage: 12VAC from XMFR • IC circuitry with holding feature for accurate time setting • 12 or 24 hour operation • Printed wiring board assembly

DESCRIPTION: — 45 Pieces (components/hardware) in Kit —
Bright .300" high common cathode display. Uses MM5314 clock chip. Switches for hours, minutes and hold functions. Hours easily viewable to 20 feet. Simulated walnut case. 115VAC — 12 or 24 hour operation. Includes all components, case and wall transformer. Size: 6⅝"L x 3⅛"H x 1¾"D.

JE701 6-Digit Clock Kit. **$19.95**

4-Digit Desk Clock Kit

FEATURES:
• 4 digit LED display x .375"H • Board voltage: 12VAC from XMFR • IC circuitry with holding feature for accurate time setting • Sequential flashing colon • 12 or 24 hour operation • Printed wiring board assembly

DESCRIPTION: — 27 Pieces (components/hardware) in Kit —
Bright .375" ht. common cathode display. Sequential flashing colon. 12 or 24 hour operation. Black extruded aluminum case. Pressure switches for hours, minutes and hold functions. Includes all components, case and wall transformer. Size: 3⁹⁄₁₆"L x 1¾"H x 1¼"D.

JE730 4-Digit Clock Kit. **$19.95**

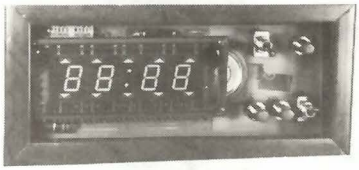
Jumbo 6-Digit Clock Kit

FEATURES:
• 4 digit x .800"H and 2 digit x .300"H • Board voltage: 12VAC from XMFR • IC circuitry with holding feature for accurate time setting • 12 or 24 hour operation • Printed wiring board assembly

DESCRIPTION: — 66 Pieces (components hardware) in Kit —
Four .800" ht. and two .300" high common anode displays. Uses MM5314 clock chip. Pressure switches for hours, minutes and hold functions. Hours easily viewable to 30 feet. Simulated walnut case. 115VAC—12 or 24 hour operation. Includes all components, case and wall transformer.
Size: 6⅝"L x 3⅛"H x 1¾"D.

JE747 Jumbo 6-Digit Clock Kit. **$24.95**

4-Digit Fluorescent Alarm Clock Kit

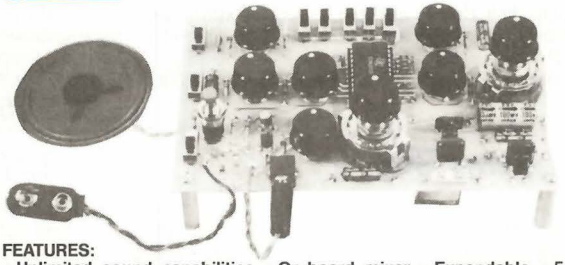


FEATURES:
• Bright 4 digit 0.5" high display • Flashing colon • Alarm tone 500Hz once per second • 10 minute snooze alarm • AM/PM indicator • Automatic display (photo cell) dimmer

DESCRIPTION: — 45 Pieces (components/hardware) in Kit —
The JE750 Clock Kit is a versatile 12-hour digital clock with 24-hour alarm. The clock has a bright 0.5" high blue-green fluorescent display. The 24-hour alarm allows the user to disable the alarm and immediately re-enable the alarm to activate 24 hours later. The kit includes documentation, components, case and wall transformer. Size: 6⅝"L x 3¼"H x 1¾"D.

JE750 4-Digit Alarm Clock Kit. **$29.95**

Sound Experimenter Kit



FEATURES:
• Unlimited sound capabilities • On-board mixer • Expandable • 5 volt output • Variable pitch • Variable rate • Variable attack/decay • White noise generator • And much more!

DESCRIPTION: — 76 Pieces (components/hardware) in Kit —
This fun and unique kit allows you to synthesize sounds that are limited only by your imagination, such as planes, trains, race cars, birds, whistles, explosions, space warps, phasers, etc. The JE755 has the ability to be expanded by combining and altering sound with the use of external parts. An external amplifier or stereo system may be added to provide a richer sound. The JE755 may be powered by a 9V battery (not included) or by an optional wall transformer (Part No. DC901, $4.49). In order to understand and utilize all the functions of the JE755, it is suggested that the 76477 data sheet be purchased as well ($1.00). This kit includes all components (as pictured) as well as documentation for assembly and use. Size: 5½"L x 3⅝"W x 1¾"H.

JE755 Sound Experimenter Kit. **$34.95**

Digital Thermometer Kit

FEATURES:
• Dual sensors: Switch control for indoor/outdoor or dual monitoring applications • Circuitry: Intersil 40 pin A/D converter chip (7107CPL) • Continuous reading of 3 bright .80" high HP displays • Range: −40°F to 199°F, −40°C to 100°C • Accuracy: ±1° nominal (depending on range and calibrating conditions) • Setting for either Fahrenheit or Celsius degrees • Sensors can be placed over 10 feet from case with wires provided • Sensors may be submerged in water provided they are first coated with silicon

DESCRIPTION: — 45 Pieces (components/hardware) in Kit —
Dual sensors for indoor/outdoor or dual monitoring applications. Sensors can be extended up to 500 feet. Manual switch for sensor selection. Continuous LED .8" high display. Simulated walnut case. AC wall adapter included. Size: 6⅝"L x 3¼"H x 1¾"D.

JE300 Digital Thermometer Kit. **$39.95**

— ALL ABOVE KITS COME WITH COMPLETE ASSEMBLY INSTRUCTIONS —

JAMECO QUALITY KITS

Regulated Power Supply Kit

+5VDC @ 1 Amp

- Provides 1 solid amp @ 5V output
- 120VAC input
- Uses LM309K Regulator
- Heat Sink provided
- PC board construction
- Includes components, hardware and instructions
- Size: 3½"L x 5"W x 2"H
- 24 pieces (components/hardware) in Kit

OPTION:
The JE205 Multi-Voltage Kit **$7.95**
(See description at right)

JE200 Regulated Power Supply Kit . . . $14.95

Multi-Voltage Board Kit
Adapts to JE200 to Supply 3 Voltages

- −5VDC @ 250mA, ±9VDC @ 200mA, ±12VDC @ 160mA output (independent load rating at single terminal
- DC/DC converter with +5V input
- Toroidal high speed switching transformer
- Short circuit protection
- PC board construction
- Piggy-back to JE200 board for mounting
- Loads up to 2 watts total power
- Size: 3½"L x 2"W x 9/16"H
- 36 pieces (components/hardware) in Kit

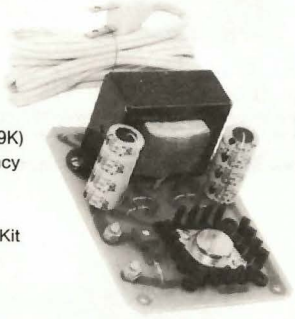
−5VDC @ 250mA
±9VDC @ 200mA
±12VDC @ 160mA

SPECIAL REDUCED PRICE!

JE205 Multi-Voltage Board Kit. $7.95

Variable Power Supply Kit

+5 to +10VDC @ 1.5 Amp
+15VDC @ 0.5 Amp



- Full 1.5 amp @ +5 to +10VDC output Up to 0.5 amp @ 15VDC output
- 120VAC input
- Heavy duty transformer
- 3-terminal IC Voltage Regulator (LM309K)
- Heat sink provided for cooling efficiency
- PC board construction
- Size: 3½"L x 5"W x 2"H
- 30 pieces (components/hardware) in Kit

SPECIAL REDUCED PRICE!

JE210 Variable Power Supply Kit. . . . $16.95

Adjustable Power Supply Kit

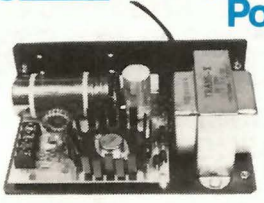
±5VDC to ±15VDC @ 175mA to 750mA

- Adjustable positive & negative supplies ±5 to ±15VDC Regulated 175mA - 750mA per supply
- Positive and negative 1.2VDC to 15VDC (Range)
- Power output (each supply): 5VDC @ 500mA, 10VDC @ 750mA, 12VDC @ 500mA, and 15VDC @ 175mA
- 120VAC input
- Two 3-terminal adjustable regulators with thermal overload protection
- Heat sink regulator cooling
- LED "on" indicator
- PC board construction
- Size: 3½"W x 5 1/16"D x 2"H
- 48 pieces (components/hardware) in Kit

SPECIAL REDUCED PRICE!

JE215 Adjustable Power Supply Kit . . . $19.95

Adjustable Switching Power Supply



+4VDC to +24VDC
Up to 5 Amps

- 70 pieces (components/hardware) in Kit

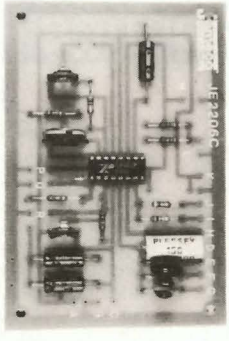
SPECIAL REDUCED PRICE!

• Adjustable: 4 to 24VDC, 5A @ 5VDC (Derated to 0.5A @ 24VDC: 4.8A @ 6VDC; 4.1A @ 9VDC; 3.3A @ 12VDC; 1.9A @ 18VDC) • Regulated outputs with overcurrent protection • Input: 115VAC 50/60Hz • Output variations within 20mV • Out Sense terminals • Step down regulator • Rigid frame with mounting holes • Size: 8.25"L x 4.25"W x 2.25"H • Weight: 3.25 lbs.

The JE224 is a high-efficiency power supply utilizing an LH1605 (8-pin, TO-3 package) 5 amp switching regulator. The LH1605 provides high current output while maintaining a small physical configuration. Open frame type to allow mounting into restricted areas.

JE224K Adjustable Power Supply Kit. . . . $69.95
JE224A Assembled and Tested. $89.95

Function Generator Kit



Provides three basic waveforms: sine, triangle and square wave. Frequency range: 1Hz to 100kHz Output amplitude from 0V to over 6V (peak to peak). Uses a 12V supply or a ±6V split supply. Includes chip, PC board, components and instructions.

- 21 pieces (components/hardware) in Kit

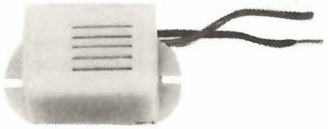
SPECIAL REDUCED PRICE!

JE2206B Function Generator Kit. . . . $14.95

– ALL ABOVE KITS COME COMPLETE WITH ASSEMBLY INSTRUCTIONS –

AUDIBLE SIGNAL DEVICES

MINI-BUZZER



- MB6 operates on +6 to +9VDC
- Output frequency: 800Hz
- Draws only 15mA @ 600 Ohms
- Sound: 80db
- Size: 1¼" x ⅝"

	1-9	10+
MB6 . . .	$1.49	$1.25

SONALERT
Audible Signal Device

(PIEZO HJ-650)

"Use as a Warning Device or Audible Reminder"

• Turns on and off with low power transistor, SCR or IC • Can be battery operated 4-28volts • Solid-state — no moving parts • Panel mounts in 1.25" round hole • Black plastic case — includes mounting nut • Operating volts (DC): 4V (min.) to 28V (max.) • Current mA: 3mA (min.) to 25mA (max.) • dbA: 69dbA (min.) to 80dbA (max.) • Frequency: 2900Hz ±500 • Size: 1¼"H x 1 11/16"D

	1-9	10+
SC628 (HJ-650).	$6.49	$5.95

UNIVERSAL BUZZER

(KOBISHI CLB-23B)

• 9-12VDC operation • Fits most applications where high volume alarm is needed • Size: 2" dia. x 1¼"H

	1-9	10+
UB12.	$.65	$.49

SPEAKERS

ROUND

A0201
8 Ohm .25 Watt
Size: 2¼" dia. x 11/16" deep

A0202
8 Ohm .30 Watt
Size: 2½" dia. x ¾" deep

		1-9	10+
A0201	2¼".	$.79	$.65
A0202	2½".	$.89	$.75

SQUARE

2½" Square
16 Ohm
.25 Watt
(4 mounting holes)
Large Ceramic Magnet
Size:
2⅝" square x ¾" deep

	1-9	10+
SF-25016. . . .	$.99	$.85

FUJI SLIM LINE

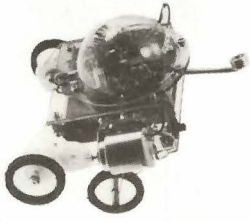
1 3/16" Square x 5/32" Thick
8 Ohm — .40 Watt

• Stainless steel diaphragm • Ferrite bonded magnet • Slim line • For alarms, music sounds, telephone equipment, computers, speech aid, etc.

	1-9	10+
TS30S.	$1.95	$1.69

OWI EDUCATIONAL ELECTRONIC ROBOT KITS OWI

PIPER-MOUSE



Piper-Mouse (MV-915) is controlled by a supersonic sound sensor and an electronic circuit (one channel). Use the whistle included in this kit to make Piper-Mouse turn left, stop, turn to the right, stop, advance and stop.

• Movement: 3 wheels driven by 2 DC motors
• Control: Supersonic sound sensor including condenser microphone and PC board
• Power source: (2) AA batteries and (1) 9V battery (batteries not included) • Color: blue

	1-9	10+
MV915 (Sound Sensor).	$36.95	$34.95

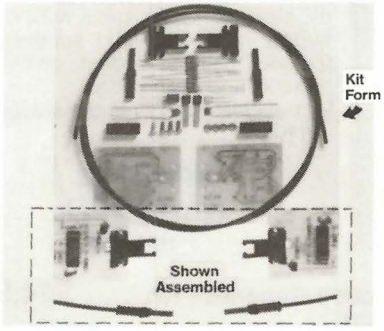
PEPPY

Peppy (MV-916) has a two-way sensor that is susceptible to noise and solid objects in its path. When the sensor comes into contact with an obstacle or hears a loud noise, such as a clap, it will automatically reverse, turn to the left, and resume its new course until it hits a new object.

• Power source: (2) AA batteries (not incl.)
• Color: pink • Size: 4¾" Radius x 2¾"H

	1-9	10+
MV916 (Sound/Touch Sensor) . . .	$21.95	$20.49

FIBEROPTICS EDUCATIONAL KIT



Fiber Optics Educational Kit
Looking Ahead Through FIBEROPTICS

The ELK-1 fiber optic system is a low cost, TTL compatible data transmission system designed specifically as an educational tool for students and engineers working in many different industries. This kit will easily demonstrate the principles of fiber optic system design. The ELK-1 package includes a transmitter PCB, a receiver PCB, one meter of plastic optical fiber, and all the necessary electrical hardware. Complete step-by-step instructions, theory of operation, and tutorial information are included. The finished product can be used immediately for direct data transmission. A built-in oscillator on the transmitter PCB will allow transmission without an external CMOS and TTL input.

	1-9	10+
ELK-1.	$19.95	$18.49

DISK DRIVES AND ENCLOSURES

Micro Peripherals, Inc. MPI52S
5¼" Full Height Disk Drive*

• Double-sided • Single/double density • Full height drive • 48 TPI • 80 tracks • Documentation included • Size: 5.75"W x 7.75"D x 3.25"H • Weight: 3.7 lbs.

IBM PC/XT COMPATIBLE!

MPI52S. $69.95

PANASONIC JU-475
5¼" Half Height Disk Drive*

• Double-sided • Single/double density • Half height drive • 48 or 96 TPI • 80 tracks • Documentation included • Size: 5.75"W x 8.00"D x 1.63"H • Weight: 3.3 lbs.

IBM AT COMPATIBLE!

JU-475. . . . . $149.95

TANDON
TM100-2/TM100-4
5¼" Full Height Disk Drive*

TM100-2 • Full-height drive • Double-sided • Single/double density • 48 TPI • 80 tracks

TM100-4 • Full-height drive • Double-sided • Quad density • 96 TPI • 160 tracks

• Documentation included • Size: 5.75"W x 8"D x 3.25"H • Weight: 3.7 lbs.

TM100-2 is IBM PC/XT Compatible!

TM100-2 (Double Density). **$119.95**
TM100-4 (Quad Density). . . . . **$ 59.95**

PANASONIC
JU-455
(Shugart SA455)
5¼" Half-Height Disk Drive*

(Direct Replacement for Shugart SA455)

IBM PC/XT Compatible!

• Double-sided • Single/double density • Half-height drive • 48 TPI • 80 tracks • Documentation included • Size: 5.75"W x 8.46"D x 1.62"H • Weight: 3.3 lbs.

JU-455. . . . . $109.95

TEAC
FD55B/FD55F
5¼" Half-Height Disk Drive*

FD55B is IBM PC/XT Compatible!

FD55B • Double-sided • Single/double density • Half-height drive • 48 TPI • 80 tracks • Documentation included • Size: 5.34"W x 8"D x 1.58"H • Weight: 3.3 lbs.

FD55F • Double-sided • Quad density • 96 TPI • 160 tracks per disk • Documentation included • Size: 5.34"W x 8"D x 1.58"H • Weight: 3.3 lbs.

FD55B (Double Density). **$109.95**
FD55F (Quad Density). **$139.95**

Coleco Computer Cassette Tape Drive

• Originally designed for the Coleco Adam™ Computer • Serial format • Search 80ips — Read/Write 200ips • Operates on 12V motor, 5V logic • 8-pin and 9-pin connectors • Size: 5"W x 4"D x 3¾"H • No spec available

T-Drive *(1700 In Stock)*. **$6.95**
T-Special *(1900 In Stock)*. **$2.95**

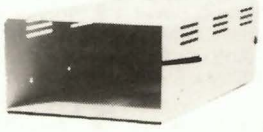
Defective T-Drives — T-Special includes over 160 components, 2 motors, connectors and damaged case

JMR DISK DRIVE ENCLOSURES WITH POWER SUPPLIES

5¼" Disk Drive Enclosure

Just Plug-In!

Textured Beige Paint



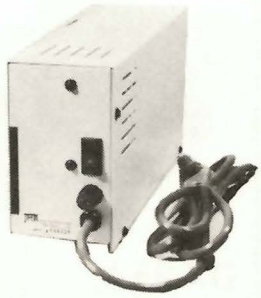
DDE-1FH
(Front View)

Houses One Full-Height 5¼" Disk Drive

• Power: +5V @ 1.0A, +12V @ 1.2A • Textured beige paint • Slot for data cable • The unit comes complete with power supply, switch, power cord, fuse holder and connectors • Size: 5⅞"W x 3¼"H x 11½"D • Weight: 6 lbs.

DDE-1FH . . $59.95

Dual 5¼" Disk Drive Enclosure



DDE-2HH
(Back View)

Houses Two Half-Height 5¼" Disk Drives (Vertical Mount)

• Power: 2 x +5V @ 1.0A*, 2 x +12V @ 1.2A* (*not simultaneously) • Textured beige paint • Data cable strain relief for operation safety • Complete w/power supply, switch, power cord, fuse holder and connectors • Size: 3½"W x 5²⁵⁄₃₂"-6³⁄₁₆"H (slope) x 12⅞" (bottom) — 13⅛"D (top) • Wt.: 6.5 lbs.

DDE-2HH . . $69.95

5¼" Hard Disk Drive Enclosures

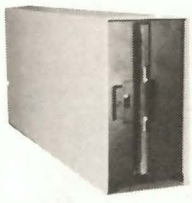
HDDE-1FH
(Front View)

Houses One Full-Height (HDDE-1FH) or One Half-Ht. (HDDE-1HH) 5¼" Hard Disk Drive

• Power: +52W — +5V @ 2.5A, +12V @ 2.5A — peak 3.5 amp • Textured grey paint • Data cable connectors cut-out • Unit comes complete with power supply, switch, power cord, fuse holder, connectors and fan • AC socket • Injection molded front bezel • Built-in fan for cool performance • Forced air with removable filter • Size: 15¹⁵⁄₁₆"L x 9⅞"W x 4⅞"H • Weight: 15 lbs.

HDDE-1FH . . . $194.95
HDDE-1HH . . . $199.95

8" Disk Drive Enclosure



DDE-8FH
(Front View)

Houses One Full-Height 8" Disk Drive (Vertical Mount)

• Power: +24V @ 6.0A, +5V @ 6.0A, −5V @ 1.0A • Textured beige paint • Data cable strain relief • 1 AC connector for AC Disk Motor provided • Unit comes complete with power supply, switch, power cord, fuse holder, connectors, and built-in fan for cool performance • Forced air with removable filter • AC socket • Size: 4¹¹⁄₁₆"W x 8⁹⁄₁₆"–9¹⁄₁₆"H (slope) x 21¼" (bottom) - 21¾"D (top) • Weight: 19 lbs.

DDE-8FH . . . $179.95

All disk drives above do not include case, power supply or cables. All manuals purchased separately are $10.00 each.

See page 75 for Disk Drive Cables — See page 69 for Power Supplies

DISKETTES AND ACCESSORIES

Quality Diskettes! 5¼" DISKETTES Lifetime Warranty!


DSDD-FILE

SSDD = Single Sided Double Density DSDD = Double Sided Double Density DSQD = Double Sided Quad Density

Part No.	Description	Boxed	Price
SSDD	5¼" SSDD Soft Sector with Hub Ring & Envelope (Ultra Memory)	10	$ 8.95
SSDD-100	5¼" SSDD Soft Sector with Hub Ring (Bulk)	100	$ 79.95
DSDD	5¼" DSDD Soft Sector with Hub Ring & Envelope (Ultra Memory)	10	$ 9.95
DSDD-100	5¼" DSDD Soft Sector with Hub Ring (Bulk)	100	$ 89.95
DSQD	5¼" DSQD Hard Sector w/Hub Ring enclosed in library case (EXXON Office Systems)	10	$ 19.95
DSQD-100	5¼" DSQD Hard Sector w/Hub Ring enclosed in library case (EXXON Office Systems)	100	$179.95
DSDD-FILE	Includes 10 each Ultra Memory DSDD 5¼" Diskettes enclosed in a Dial-n-File Storage Box	10	$ 14.95

Recording Interchange 5¼" Diagnostic Disk

The RID is a precision tool set up in terms of software routines on a 5¼" flexible disk. The disk can be inserted in a drive for fast (less than 1 min.), comprehensive, accurate, pass-fail determination of seven critical drive factors that can affect disk interchangeability (disk speed, noise tolerance, write/read, track alignment, positioner backlash, clamping, and erase crosstalk.)

Part No.	Description	Price
5S1-2	Apple II, II+ and //e.	$34.95
5S2-1	IBM PC and XT.	$35.95

Diskette Envelopes

Sleeves for Bulk-Purchased Diskettes

• Tear proof • Lint/contaminant free • Anti-static protect. • Wear resistant

Part No.	Description	Price
MP5201	10 White 5¼" Envelopes.	10 for $ .99
MP5201-100	100 White 5¼" Envelopes.	100 for $8.95

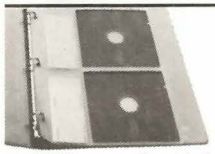
Color-Coded Diskette Envelopes

Ideal for Data Identification!!

• **Tear proof** • **Lint/contaminant free**
• **Anti-static protection** • **Wear resistant**

Please specify color code:
(B) Blue, (R) Red, (S) Silver, (Y) Yellow, (G) Green

Part No./Color Code	Description	Price
CC5201 (__)	10 5¼" Envelopes.	$ 1.49
CC5201-100 (__)	100 5¼" Envelopes.	$13.95
CC-COMB	10 envelopes—2 ea. color (B)(R)(S)(Y)(G).	$ 1.95

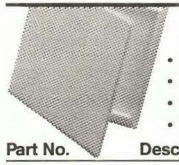


Vinyl Pages

For 3-Ring Binders

Protects disks from dirt, scratches, dust, spills, and other contaminants. Reduces the risk of getting dirt near your disk drive head. Size: 8½" x 11"

Part No.	Description	Price
PC001	2 Pocket 5¼" Vinyl Page.	10 for $5.95
PC001-2	4 Pocket 5¼" Vinyl Page.	10 for $6.95



Mail Pak™

- Holds up to 3 diskettes
- Ideal for mailing and retail packaging
- Dust proof and durable
- Transparent sleeve allows easy identification

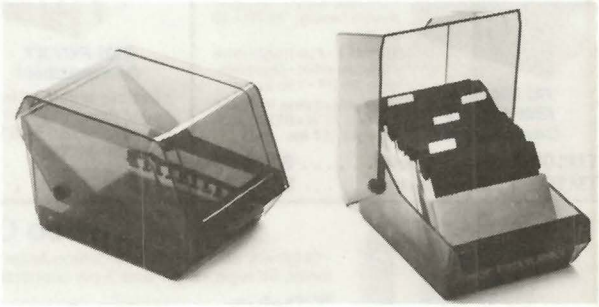
Part No.	Description	Price
MP-05	Holds 3 each 5¼" Diskettes.	$1.95 each

MINI-PAK

• Stores 10 (5¼") diskettes • Protects disk from dust contamination • Durable smoked plastic • Size: 6"L x 5⅞"H x 1 7/16"D

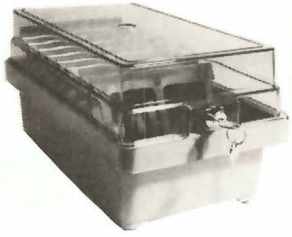
Part No.	Description	Price
MP-10	Stores 10 (5¼") Diskettes.	$1.79 each

DISK MINDER



• Attractive, functional disk storage system • 36 (3", 3.25" and 3.5"), 75 (5¼") or 50 (8") disk storage capacity • Easy filing and retrieving • Protects disk from dust contamination • Molded from durable smoked plastic with front carrying handle • Size (DM36): 4½"L x 4 5/8"H x 8 3/16"D • Size (DM50 and DM75): 6½"L x 6½"H x 9¾"D • Weight: 2 lbs.

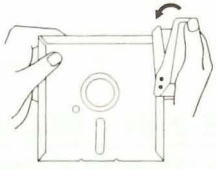
Part No.	Description	Price
DM36	Stores 36 (3", 3.25", 3.5") Diskettes.	$11.95
DM75	Stores 75 (5¼") Diskettes.	$ 9.95
DM50	Stores 50 (8") Diskettes.	$19.95



SECURITY DISK FILE

- Stores 100 5¼" diskettes
- Security lock with 2 keys
- Disk protection — avoid the risk of errors from dust or mishandling • ABS case with acrylic cover • 9 individual disk dividers with index tabs
- Anti-static • Size: 14"L x 7.5"W x 6½"H

DX-85A. $12.95



DISK NOTCHER

SAVE $$$!

The Notcher saves you money by allowing you to use the flip side of your 5¼" diskettes for back-up copies.

Features:

- **Accurate position guide**
- **Square notch cut**
- **Plastic clippings catcher**
- **Easy leverage handle**

Notcher. $4.95

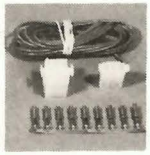
Power Cable Kits & Signal Cables for Disk Drives

5¼" DISK DRIVE POWER CABLE KIT

Includes:
- One 4-pin connector shell
- Four connector pins
- Four 1½-foot lengths of 16 AWG wire

	1-9	10+
PCK-5.	$2.95	$2.49

8" DISK DRIVE POWER CABLE KIT



Includes:
- One 3-pin connector shell
- One 6-pin connector shell
- Nine connector pins
- Nine 1-foot lengths of 16 AWG wire

	1-9	10+
PCK-8.	$3.95	$3.49

5¼" DISK DRIVE POWER SPLITTER

Attention PC Owners!

The PC-Y is a power splitter for disk drives. It splits a four line Molex male into two females for general applications (for example, two disk drives to one power supply).

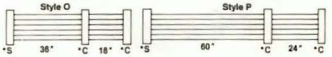
	1-9	10+
PC-Y.	$5.95	$4.95

5¼"/8" SINGLE DRIVE CABLES

5¼" DRIVES USE 34-PIN ASSEMBLIES
8" DRIVES USE 50-PIN ASSEMBLIES

Part No.	Drive	Style	1-9	10+
S34-36-C	5¼"	M	$5.49	$4.95
S34-60-C	5¼"	N	$6.95	$6.19
S50-36-C	8"	M	$8.39	$7.39
S50-60-C	8"	N	$9.95	$8.95

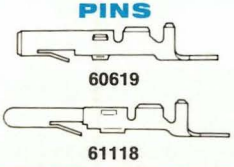
5¼"/8" DUAL DRIVE CABLES



Part No.	Drive	Style	1-9	10+
S34-36C-18C	5¼"	O	$ 8.79	$ 7.79
S34-60C-24C	5¼"	P	$ 9.79	$ 8.69
S50-36C-18C	8"	O	$13.29	$11.79
S50-60C-24C	8"	P	$14.69	$12.95

AMP DISK DRIVE POWER PINS & CONNECTORS

PINS



Part No.	Description	Used With:	1-9	10-99	100-999	1000+
60619	Female Pin	5¼"/8" Drive	$.08	$.07	$.06	$.05
61118	Male Pin	5¼"/8" Drive	$.08	$.07	$.06	$.05
480270	6 Pin Connector (Female)	8" Drive	$.63	$.55	$.49	$.43
480303	3 Pin Connector (Female)	8" Drive	$.45	$.40	$.35	$.31
480424	4 Pin Connector (Female)	5¼" Drive	$.33	$.29	$.25	$.22
480426	4 Pin Connector (Male)	5¼" Drive	$.69	$.65	$.59	$.49

CONNECTORS

TECH SPRAY

FD ELECTRONIC CLEANER™

100% Freon TF, the industry standard for contact and related precision cleaning. Leaves no residue, may be used in equipment while operating. Excellent wetting and penetration. Safe on all plastics, insulation, photographic film and instruments.

	1-11	12+
1638-16S (16 oz.).	$4.95	$4.19

FLUX STRIPPER S™

Heavy duty defluxer for solvent soluble and synthetically activated fluxes. Removes organic contaminants (silicone, grease, varnishes, oils, waxes, rosin solder flux, some conformal coatings). Not for water soluble fluxes.

	1-11	12+
1644-16S (16 oz.).	$4.49	$3.75

PRECISION DUSTER™

Pressurized Dusting Gas. Removes microscopic lint, dirt, ferrous oxide and other particles by blowing a thin jet of inert gas. Especially useful when cleaning delicate components and instruments where residual fluid entrapment could pose a problem.

	1-11	12+
1668-15S (14 oz.).	$3.89	$3.29

ZERO CHARGE ANTI-STAT™

Inert anti-stat for electronically neutral barrier that effectively prevents the build up of electro-static charge and subsequent discharge. Used to eliminate static on carpets, desks, work tables and work areas. Stops static build up in printers, paper feeders, and related equipment.

	1-11	12+
1686-16S (14 oz.).	$4.39	$3.69

Screen & Keyboard Cleaner ZERO CHARGE ANTI-STATIC WIPES

- For optical clarity
- Removes grease, dust, etc. from monitors, keyboards, scopes, etc.

	1-11	12+
1687P (100 Packs). . . .	$11.95	$10.95

ZERO CHARGE ANTI-STATIC FREEZER™

Contains anti-static compound that protects static sensitive MOS and FET devices during trouble shooting and component insertion. Keeps environmental integrity of components being examined. Protect against static build-up caused by humidity, friction, and spray nozzle emissions. Dissipates existing charges.

	1-11	12+
1689-15S (14 oz.).	$3.39	$2.89

TECHCLEAN™ HEAD CLEANING DISK KIT

Simple and Easy!

The simple and easy way to clean single and dual head floppy disk drives. A preventative maintenance product that guards against data loss and degradation of system due to debris contamination. By cleaning read/write heads, it eliminates data errors, lost data and service calls caused by particulate accumulation. Kit includes reusable Lexan® jacket and 2 pre-saturated cleaning disks. Pre-saturated disks insure the correct amount of cleaning and solvent and eliminate messy squeeze bottles and spills in the computer area.

TECHCLEAN™ REPLACEMENT DISKS (REP-DISK) contains 10 pre-saturated replacement disks for use with the above kit.

	1-11	12+
1706 (Head Cleaning Kit).	$5.95	$5.49
1707 (Replacement Disks).	$9.95	$9.49

TECHCLEAN™ COMPUTER CARE KIT

This selection of Tech Spray computer care products is perfect for home or office computer maintenance needs. Each kit includes:

- **Twelve TECHCLEAN™ WIPERS**
- **One 3 oz. ZERO CHARGE ANTI-STAT**
- **One 3 oz. TECHCLEAN™ PRECISION DUSTER**
- **Ten ZERO CHARGE ANTI-STATIC TECHCLEAN™ SWABS**
- **Twelve Packets ZERO CHARGE ANTI-STATIC HAND LOTION**
- **One 2 oz. ETC. — ANTI-STAT COMPUTER ENCLOSURE CLEANER**
- **One 3 oz. ZERO CHARGE ANTI-STATIC SCREEN & KEYBOARD CLEANER**
- **12 Pkts. ZERO CHARGE ANTI-STATIC SCREEN & KEYBOARD CLEANER**

	1-11	12+
1708.	$19.95	$17.95

MICE. JOYSTICKS AND PADDLES

LOGITECH

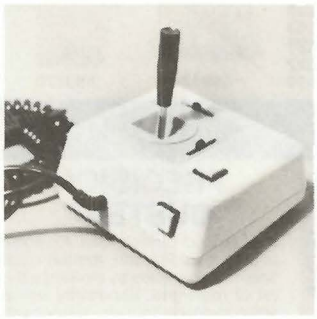
Mouse for IBM PC, XT and Compatible Computers

LOGIMOUSE C7 features opto-mechanical technology, twice the resolution of other mice, programmable baud rate up to 9600 baud, and excellent tracking. In addition the mouse requires no external power supply and no pad. LOGIMOUSE is fully compatible with all mouse-based application programs (e.g. AutoCad, MS Windows, etc.). Logimouse PLUS package software features LOGIMENU (Programmable Pop-up Menu System), CLICK (sets mouse to predefined settings), POINT-AND-CLICK SHELL (for Lotus 1-2-3), and POINT EDITOR (Mouse Based Program Editor). **Note:** The Logimouse comes standard with a DB25S female connector. If the serial port you plan to use is also a DB25 female connector, you will need a JRS-PP Gender Changer (below). • Size: 3¾"L x 2⅝"W x 1"H • Color: Light Gray

Part No.	Description	1-9	10+
C7 Base	(Includes C7 Mouse and Logimouse Driver Version 3.0 Software).....	$ 94.95	$84.95
C7 Plus	(Includes C7 Mouse and Logimouse PLUS Package Software).....	$109.95	$99.95
JRS-PP	Double-end DB25P (Plug) Assembly	$ 7.79	$ 6.79

Joysticks for Your Personal Computers

BETTER



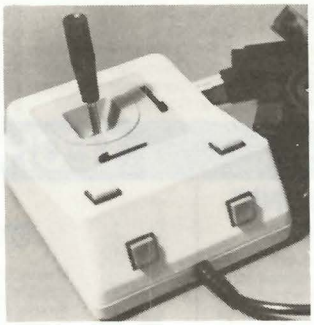
Size: 4"L x 4"W x 1⅞"H

High Quality JOYSTICK for the Apple *IIe* and *IIc*

Features:
- Auto-centered joystick with fine tuning
- Accurate and stable performance
- Easy and handy to operate
- 5 foot cord
- Durable mechanism
- Long life variable resistor control

		1-9	10+
AJS-1	(Joystick for Apple *IIe* and *IIc*)...	$19.95	$17.95

PICO products



Size: 4½"L x 3¾"W x 2"H

Universal JOYSTICK

for Apple II, II+, *IIe* or *IIc* and IBM PC or PCjr

Features:
- 2 operating modes can be selected: "Auto-Centering" or "Free-Floating"
- 2 pairs of "Fire" buttons for the left or right-hand user
- 10 feet of coiled cord
- Easy & handy to operate
- Accurate and stable performance
- Fine adjustments
- Includes three cables

		1-9	10+
UJS-1	(For Apple II, II+, *IIe*, *IIc*, IBM PC, PCjr)	$29.95	$26.95

Computer and Game Joystick/Controller for Coleco and Atari

• Originally designed for Coleco Vision/Adam, but is also compatible with the Atari (Fire buttons work with Coleco Vision/Adam – Atari has joystick function only) • 12-digit keypad with joystick • Includes 5 foot coiled cord with 9-pin connection • **Note:** Sold in single units, not pairs • Color: Black • Size: 6⅝"L x 2¾"W x 1"H

		1-9	10+
JS-2.....		$1.95	$1.75

Size: 3½"L x 2¼"W x 1½"H

Coleco General Application PADDLE

A great remote volume control!

9000 In Stock!

The RSP is a versatile paddle with endless applications. It houses a 1 Meg potentiometer (can be easily substituted to fit your application). A pair make a nice set of X-Y controls for any computer plotting problem or pong game. Also makes a great remote volume control for speakers in your car, van, boat, etc. The RCA-10-RCA (10-foot cable assembly with 2 male jacks) works great with the RSP Paddle – ***Just Plug In!***

Part No.	Description	1-9	10+
RSP	Paddle.....	$.69	$.49
RCA-10-RCA	Cable Assembly.....	$.99	$.69

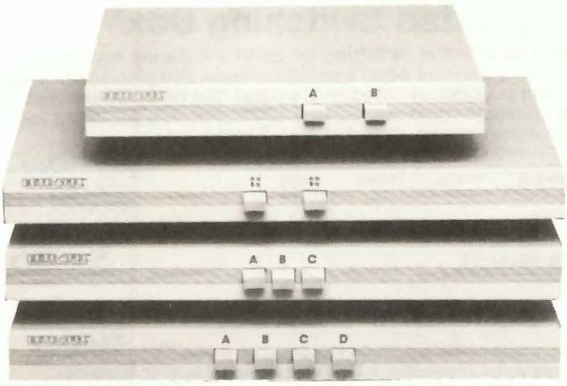
Noble JOYSTICKS Coleco

JS-5K General Application
Size: 1⅝"D × 1⅝"W × 1⅞"H

JVC-40 General Application
Size: 4⅝"L × 2⅜"W × 1½"H

Part No.	Description	1-9	10+
JS-5K	5K Linear Taper Pots.....	$4.75	$4.29
JS-150K	150K Linear Taper Pots.....	$4.49	$3.95
JVC-40	40K (2) Video Controller in case....	$1.95	$1.49
JS-KNOB	Knob for JS-5K and JS-150K.....	$ .99	$ .79
JVC-KNOB	Knob for JVC-40.....	$ .99	$ .79

RS232 AND CENTRONICS DATA SWITCHES



AB-25

ABX-25

ABC-25

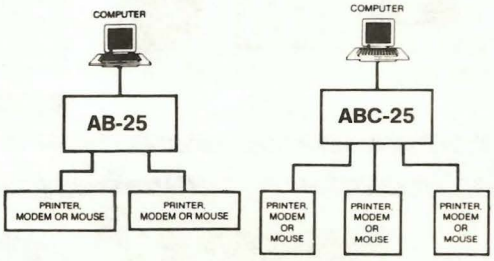
ABCD-25

- **NEW COMPACT DESIGN – Only 1½" High**
- **All Pins Switched**
- **Long-Life Button Operation**
- **Gold-Plated All-Female Connectors**
- **Color-Coordinated with Today's Personal Computers**
- **Full Shielding Exceeds FCC Requirements**
- **Reinforced Printed Circuit Boards**
- **Anti-Skid Feet**
- **Sheet Metal Construction for Maximum Durability**

DATA SPEC's new slim line data switches provide a convenient way to switch from a dot matrix printer to a letter quality printer, a printer to a modem, or other devices. Now you no longer have to manually change cables. With a simple push of a button, you're on your way to expanding your computer systems to its maximum capacity.

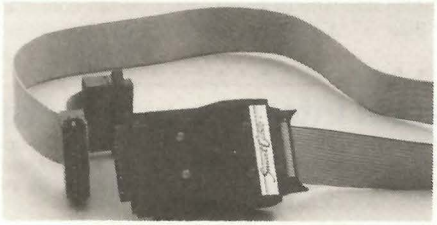
Part No.	Description	Size	1-9	10+
AB-25	25-pin A/B Switch	9½"W x 6¾"D x 1½"H	**$49.95**	**$43.95**
ABC-25	25-pin A/B/C Switch	13½"W x 6¾"D x 1½"H	**$74.95**	**$64.95**
ABCD-25	25-pin A/B/C/D Switch	13½"W x 6¾"D x 1½"H	**$84.95**	**$74.95**
ABX-25	25-pin Cross Matrix Switch	13½"W x 6¾"D x 1½"H	**$79.95**	**$69.95**
AB-36	36-pin A/B Switch	9½"W x 6¾"D x 1½"H	**$66.95**	**$57.95**
ABC-36	36-pin A/B/C Switch	13½"W x 6¾"D x 1½"H	**$94.95**	**$82.95**
ABX-36	36-pin Cross Matrix Switch	13½"W x 6¾"D x 1½"H	**$94.95**	**$82.95**
	RECOMMENDED CABLES			
S25M-10-M	Shielded 25-pin Male to Male Extension Cable (10 ft.)		**$ 9.79**	**$ 8.79**
S25M-10-F	Shielded 25-pin Male to Female Extension Cable (10 ft.)		**$ 9.95**	**$ 8.95**
S36M-10-M	Shielded 36-pin Male to Male Extension Cable (10 ft.)		**$14.95**	**$13.95**
S36M-10-F	Shielded 36-pin Male to Female Extension Cable (10 ft.)		**$15.95**	**$14.95**

Typical Applications for DATA SPEC® Data Switches



RS232 SMART CABLES

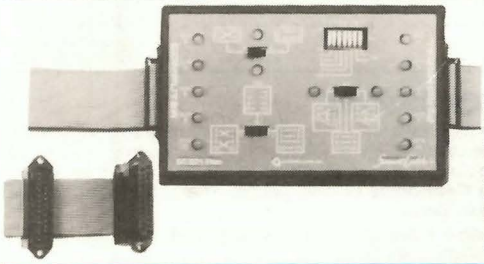
IQ TECHNOLOGIES, INC.



SMART CABLE RS232 INTERFACE

THE RIGHT CONNECTIONS. Smart Cable 817 is an intelligent interface cable that looks at the RS232 signals from the computer and the peripheral and uses its own logic circuitry to make the right connections. All you do is plug in the cable and set two switches. The Smart Cable 817 matches up all the data, handshake, and control lines automatically. Built-in male or female connector (you specify). A separate 5-foot cable is also included with both male and female DB25 connectors. Size: 3½"L x 2¼"W x ⅞"H • Manual included

SC817M Male Smart Cable. **$39.95**
SC817F Female Smart Cable. **$39.95**



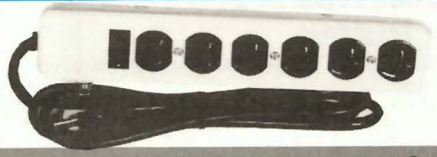
SMART CABLE PLUS RS232 INTERFACE WITH DIAGNOSTICS CAPABILITIES

Take the frustration and guesswork out of custom cabling!

SC821PLUS is an intelligent cable that instantly interfaces two RS232 asynchronous serial devices while simultaneously providing a graphic display of the interface configuration. SC821PLUS works with computers, terminals, printers, modems, bar code readers, digitizers, etc. – any device that has an RS232 asynchronous port. Comes with 2 3-foot cables with male and female DB25 connectors. • Size: 5½"L x 3½"W x 1⅛"H • Manual included

SC821P Smart Cable Plus. **$119.95**

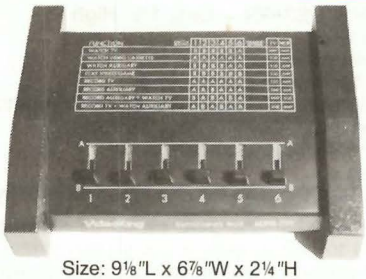
SIX OUTLET POWER STRIP



• Master switch with pilot light • Continuous spike protection • Built-in safety circuit breaker (15 amp) • UL listed • Durable enamel finished housing • Three-prong, 6-foot power cord • Color: Beige • Size: 12"L x 2¼"W x 1½"H

Model 6 6 Outlet Power Strip. **$11.95**

COMPUTER/VIDEO ACCESSORIES



Size: 9⅛"L x 6⅞"W x 2¼"H

Video King Video Switching Box

The MPS-700 provides simple and effective switching for up to 5 separate components. This is achieved by simply following the front panel's switching code, and placing the slide switches in either the up or down position, as noted on the panel. The MPS-700 eliminates time consuming and confusing multiple cable connections, while providing you with a foolproof installation at a location of your choice. Data included. Weight: 3 lbs.

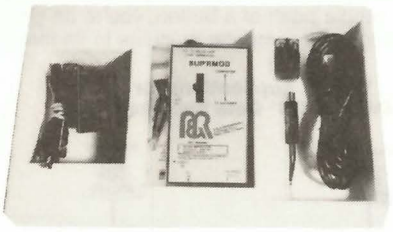
REAR PANEL

TV GAME	TO TV	TO VCR OUT	TO VCR IN	TO AUX OUT	TO AUX IN	CABLE ANTENNA
○	○	○	○	○	○	○

Close-Out SALE!

Suggested List: $29.95

MPS-700 *(2500 In Stock)*. **$9.95**



2¾"L x 5"W x 1"H

VHF/Computer Interface

Close-Out SALE!

An electrically safe, high performance VHF interface to convert a home TV into a full video display for a personal computer, a CCTV camera, or similar systems.

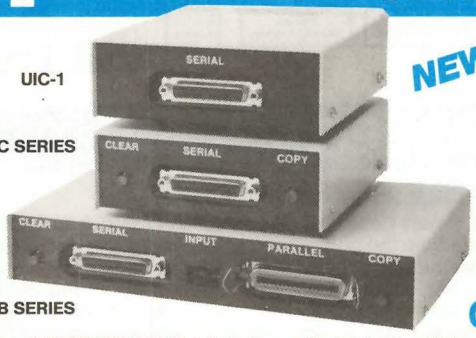
• Compatible with IBM PC and compatibles (with Color Graphics Board), Apple II, II+, *IIe* and *IIc*, Franklin Ace, Compaq and similar systems • FCC approved • Externally powered — no drain on computer's power supply • Convenient automatic power-off when switched to TV • Easy connection — you don't even have to take the cover off your system • Built-in voltage regulator assures steady operation at all times • Compatible with color and B/W TV • Complete with matching video cable, wall transformer, and impedance matching transformers • Pre-tuned to channel 3 or 4 (switchable) • For systems which output NTSC compatible composite video • Low resolution application • Data incl. • Wt.: 2 lbs.

Suggested List: $69.95

SUP'RMOD *(3000 In Stock)*. **$19.95**

JOHNATHON FREEMAN DESIGNS

UNIVERSAL CONVERTERS/BUFFERS



NEW!

Universal Interface Converter

Serial-to-Parallel/Parallel-to-Serial

The JFD CONVERTER interfaces Serial-to-Parallel or Parallel-to-Serial. A simple flip of a switch determines the direction of conversion. You can choose any of 16 standard baud rates to efficiently match your computer, printer or other serial peripherals. A bank of switches lets you set the rate from 50 baud to 19.2K baud. The serial interface supports both X-on/X-off protocol and DTR protocol through an RS-232C EIA Standard connector. The parallel interface is a Centronics 36-pin connector. • 9VAC adapter incl. • .5K buffer • Size: 5.7"W x 4.9"D x 2"H • Wt.: 1 lb. • Manual incl.

UIC-1. . . . . **$74.95**

Converter+ Universal Interface and Buffer

The JFD CONVERTER+ interfaces Serial-to-Parallel or Parallel-to-Serial. A simple flip of a switch determines the direction of conversion. The Big Plus means extra MEMORY to enhance your computer! During printing the computer normally has to wait for the much slower printer to do its job. Now your computer can output at its fastest and return to work with you. The buffer will feed the printer while you are moving ahead. Identical selectable baud rates and protocol support as the Universal Interface Converter (above).

• Ready light • Copy button • Clear button • 9VAC adapter included • Size: 5.7"W x 4.9"D x 2"H • Weight: 1 lb. • Manual included

UC64K 64K Converter+. **$149.95**

UC256K 256K Converter+. **$169.95**

Universal 64K/256K Printer Buffer

The UBUFFER Universal Printer Buffer is a hi-speed data buffer that accepts data at a high rate, and then outputs this data to your printer. You save valuable computer time this way, because your computer can send data to the UBUFFER much faster than your printer can accept and print it. The UBUFFER can be connected to practically any computer or printer. Its dual port feature allows you to take data from either a serial or parallel port on a computer, and send data to either an RS-232C serial or Centronics parallel printer. There are four possible combinations: 1) Serial to Serial, 2) Serial to Parallel, 3) Parallel to Parallel, 4) Parallel to Serial.

THREE NEW FEATURES! • Cut sheet feeding • Software selectable output • Modem support • Switch-selectable baud rates (serial) • Ready light • Copy button • Clear button • Size: 9⅓"L x 4⅛"W 1½"H • Weight: 2 lbs. • Manual included

UB64K 64K Universal Printer Buffer. **$199.95**

UB256K 256K Universal Printer Buffer. **$239.95**

64K/256K Parallel Printer Buffer

• Standard Centronics parallel printer buffer • 9VAC adapter included • Size: 9⅓"L x 4⅛"W x 1½"H • Weight: 2 lbs. • Manual included

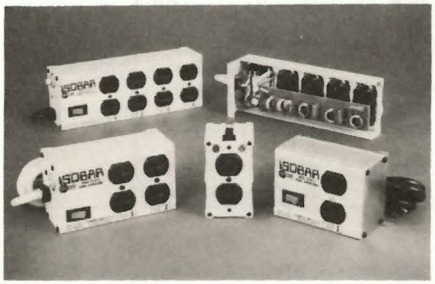
PB64K 64K Parallel Printer Buffer. **$129.95**

PB256K 256K Parallel Printer Buffer. **$149.95**

COMPUTER POWER PROTECTION

All Tripp-Lite Products Carry a One-Year Warranty

Front View IBAR-8-15 Internal View



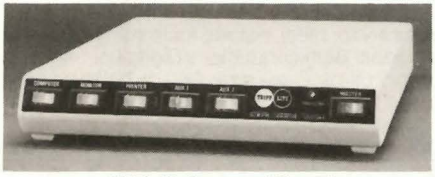
IBAR-4-6 ISOBLOK IBAR-2-6

Isobar® Surge Suppressors

Protect sensitive electronic equipment like computers, telephone systems, copy machines, and cash registers. Four models to choose from!

- **Transient Response Time:** Less than 5 nanoseconds. Transient amplitude reduction occurs faster than the clamp response of the varistors because of the high rejection rate of the Isobar filter networks.
- **High Voltage Spike Protection:** Handles up to 13,000 amp spikes. Starts suppressing spikes at 140VAC RMS. 70 watt second capacity. High voltage spike protection works between ground and neutral, neutral and hot, and hot and ground.
- **High Frequency Noise Suppression:** Greater than 20db @ 50KHz; Greater than 40db @ 150KHz; Greater than 80db @ 1MHz; Greater than 30db from 6MHz to 1000MHz
- Input: 125VAC, 15A • Standard 3-prong plug • Load handling: 1875 watts maximum • Total load: 15 amps per socket.

Part No.	No. of Outlets	No. of Filter Banks	Length of Cord	L x H x D	On/Off Switch	On/Off Light	Circuit Breaker	Features	Weight	Price
ISOBLOK	2	1	Direct Plug-in	2⅜x4⅛x2½	No	Yes	No	Protection Ind. Lite	1 lb.	**$29.95**
IBAR-2-6	2	1	6 Foot	5½x2½x3½	Yes	Yes	No	1 Main Filter	2 lbs.	**$39.95**
IBAR-4-6	4	2	6 Foot	6½x2½x3½	Yes	Yes	15 Amp	2 Individual Filters	2½ lbs.	**$54.95**
IBAR-8-15	8	4	12 Foot	10½x2½x3½	Yes	Yes	15 Amp	4 Individual Filters	4 lbs.	**$74.95**



CCI-6-12 Command Console

Isobar® Command Console *NEW!*

Complete Isobar® protection with fingertip control for all your systems' components.

Each outlet offers Isobar® protection. Isobar® surge suppression features exclusive filter isolation. This unique design eliminates the possibility of interference between the different devices plugged into each receptacle. That means your CRT or printer can't cause a glitch in your computer's program or vice versa. In addition, the "cascade circuitry design" gives your most sensitive equipment double filtering protection. • One master switch • Five auxiliary switches • 6 outlets • 12-foot power cord • All switches light-up • Color: Beige • Size: 12¾"L x 11¼"W x 2"H • Weight: 8½ lbs.

CCI-6-12. . . . . $99.95

SK6-0 Spike Blok

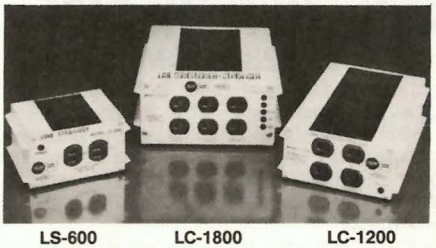
SK6-6 Spike Bar

Spike Blok and Spike Bar *REDUCED PRICING!*

The answer to low cost spike and noise suppression.

• Handles up to 140 joules spikes at current levels up to 13,000 amps • Start suppressing spikes at 150VAC RMS • 140 watt second capacity • Response time: within 20ns • On/off lighted rocker switch and 6' cord on spike bar • Circuitry indicator light • Six outlets in an attractive beige housing • Protection mode: Normal and transverse mode • Load handling: 15 amps (1875 watts)

Part No.	Description	Weight	Size	Price
SK6-0	6 Outlet Wall Block	1 lb.	3⅜"W x 1¼"D x 4¾"H	**$27.95**
SK6-6	6 Outlet, 6' Cord	1¼ lbs.	10¾"L x 2½"W x 1¾"H	**$34.95**



LS-600 LC-1800 LC-1200

Brown Out Protector Line Conditioners

Brownout protector, complete with the finest surge and RFI suppression network. The LC series line conditioners automatically regulate and maintain output voltage for sensitive loads when input voltage varies.

• Maintains load voltage at 120VAC (±5%) from 96VAC to 138VAC input range • 98% efficient - load regulation is 2% from no load to full load • Response time: ½ cycle nominal, 3 cycle maximum • High/low voltage indicator lights

Part No.	Description	Weight	Size	Price
LS-600	2 Outlet, 600 Watt	6 lbs.	5½"L x 6½"W x 3½"H	**$ 94.95**
LC-1200	4 Outlet, 1200 Watt	10 lbs.	6"L x 7¼"W x 3⅝"H	**$164.95**
LC-1800	6 Outlet, 1800 Watt	14 lbs.	9"L x 9½"W x 5"H	**$229.95**

BC425FC BC675FC

Emergency Back-Up Systems *REDUCED PRICING!*

NEW, Even Faster Response Time!

Provides safe shut down for your computer equipment when your power fails. Enclosed heavy duty gel cell battery for 15 to 35 minutes of running time at full load, or up to 120 minutes for lighter loads.

• Transfers from line to battery power within 4ms (less than ½ cycle) • Attractive desk top cabinet with four receptacles (BC200-10 has only two receptacles) • Full brownout protection • 425, 675 and 1000 watt models sound audible alarm during power failure • AC line clamping of transient spikes and surges • Built-in regulated battery charger automatically restores battery to full charge when AC power is restored • Status indicator lights for line power and battery power

Part No.	Description	Weight	Size	Price
BC200-10	2 Outlet, 200 Watt	15 lbs.	7⅛"W x 16¾"D x 6"H	**$279.95**
BC200-28	4 Outlet, 200 Watt	32 lbs.	7⅛"W x 16¾"D x 6"H	**$334.95**
BC425FC	4 Outlet, 425 Watt	33 lbs.	7⅛"W x 16¾"D x 6"H	**$444.95**
BC675FC *NEW!*	4 Outlet, 675 Watt	68 lbs.	11½"W x 17½"D x 10½"H	**$669.95**
BC1000FC	4 Outlet, 1000 Watt	80 lbs.	11½"W x 17½"D x 10½"H	**$999.95**

Voice Synthesizers for Apple, Commodore, IBM/RS232 Computers

NEW Demonstration Software Available!

JE520
VOICE SYNTHESIZER

JE523 (Apple)
INTERFACE MODULE

JE521 (Commodore)
INTERFACE MODULE

JE520 VOICE SYNTHESIZER

FOR COMMODORE 64, VIC-20 – APPLE II, II+, *IIe*

Add speech capability to your Commodore 64 or VIC-20, Apple II, II+ or *IIe* computer with JAMECO's JE520 Series Voice Synthesizer. Speech – the most effective means of communication available to man–is now immediately available for your computer.

Applications

• Education • Entertainment • Instrumentation
• Games • Telecommunications • Handicap Aids

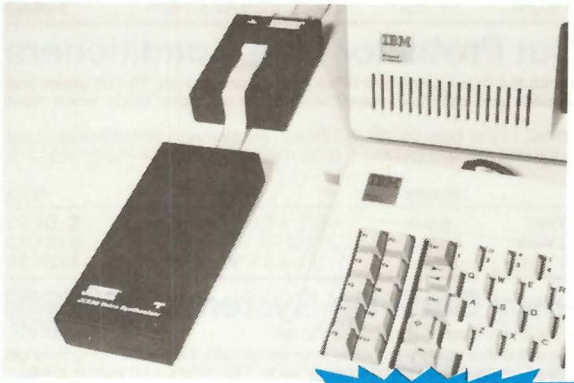
JE520 Features

- **More than 250 basic words, prefixes, suffixes, which allow the formation of well over 500 total words**
- **Allows music, graphics and speech simultaneously**
- **Can be programmed in BASIC or Assembly Language**
- **Very understandable and realistic male voice**
- **Built-in amplifier, speaker, volume control and audio jack**
- **With complete documentation and sample software**

The JE520 Series Voice Synthesizer produces a very clear, natural male voice. The outstanding speech quality is produced using National Semiconductor's Digitalker™ speech processor IC with four JAMECO custom memory chips. Case size: 7¼"L x 3¼"W x 1⅜"H. Weight: 1 lb.

PART NO.	COMMODORE 64 or VIC-20	PRICE
JE520CM	Voice Synthesizer for Commodore 64 or VIC-20 (Includes JE521 Interface Module)	$ 99.95
JE521TS	Text-to-Speech Demo Program for Commodore 64 or VIC-20 (5¼" Disk)	$ 9.95
JE521	Commodore Interface Module (Included with the JE520CM)	$ 19.95

	APPLE II, II+ and *IIe*	
JE520AP	Voice Synthesizer for Apple II, II+ or *IIe* (Includes JE523 Interface Module)	$119.95
JE523TS	Text-to-Speech Demo Program for Apple II, II+ or *IIe* (5¼" Disk)	$ 9.95
JE523	Apple Interface Module (Included with the JE520AP)	$ 39.95



JE520 VOICE SYNTHESIZER
WITH JE525 (IBM OR EQUIV.)
RS232 INTERFACE MODULE

NEW

JE520 VOICE SYNTHESIZER

FOR IBM AND OTHER RS232 COMPUTERS

The JE520 Voice Synthesizer for IBM and other RS232 computers has the same features as listed above. The JE525 Interface Module allows the JE520 Series Voice Synthesizer to be interfaced with most popular microcomputers with the use of the standard RS232 port and logic levels. The JE525 Interface Module is powered from a wall transformer. Sample program is included in the User Manual.

JE525 Interface Module Features:

- **IBM compatible**
- **CP/M compatible**
- **Power ON indicator**
- **Switch for DTE and DCE RS232 formats**
- **Indicators for DTE and DCE modes**
- **Standard DB25 female connector**

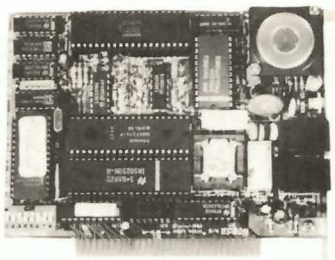
Make your programs come ALIVE!

PART NO.	IBM and Other RS232 Computers	PRICE
JE520IBM	Voice Synthesizer for IBM and other RS232 Computers (Incl. JE525 Interface Module)	$199.95
JE525TS	Text-to-Speech Demo Program for IBM (5¼" Disk)	$ 9.95
JE525	IBM/RS232 Interface Module (Included with the JE520IBM)	$119.95

ZOOM

MODEMS

PROMETHEUS PRODUCTS, INC.



ProModem 1200/300 Baud, Half-Card Modems

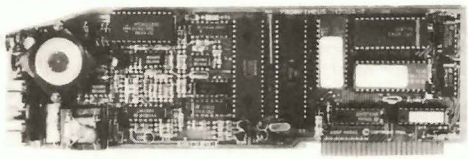
For the IBM PC, XT, AT and Compatible Computers

• Auto-answer/Auto-dial • Extensive diagnostics • Built-in speaker and volume control • Auto redial on busy • Two phone jacks with exclusion switching (allows user to easily switch between voice and data) • Ability to access Com-port 3 • Hayes compatible • 2-year warranty

The 1200B-2S comes with Mirror™ software from Softklone. It is an easy to use, very powerful communications package. Using Mirror and the 1200B-2, a user has the ability to access com-ports 1, 2 or 3. Most communications packages can only address com-port 1 or 2. By being able to access com-port 3, you don't have to disconnect your printer, plotter or other serial device from com-port 1 or 2. Plus, Mirror provides XModem to insure error-free transmission, terminal emulation and background operation.

PM1200B-2 (1200/300 baud half-card without software). **$129.95**
PM1200B-2S (1200/300 baud half-card with Mirror software). **$159.95**

NEW, Single Card Version!



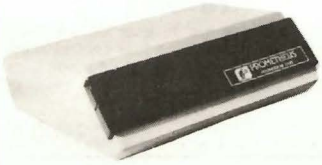
ProModem 1200/300 Baud Modem

For Apple II, II+ and *IIe*

• New — single card modem • Built-in software in ROM • Comes with ProCom-A disk-based communications software • Hayes compatible • Compatible with ProDOS • Waits for dial tones before dialing • Auto-dial/Auto-answer • Auto redial on busy • Built-in speaker and volume control • 2 phone jacks with exclusion switching (allows users to easily switch between voice and data) • 2-year warranty

PM1200A-2 (1200/300 baud modem). **$199.95**

External Modems

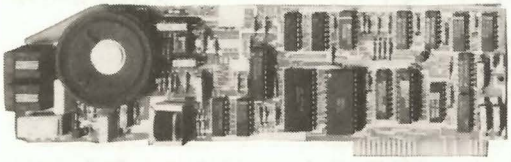


ProModem 2400/1200/300 Baud Modems

For Any Computer with an RS232 Serial Port

• Hayes command compatible • Call progress tone detection • Auto redial on busy • Internal power supply • Voice/data switching • Second phone jack for voice handset • Auto-answer/Auto-dial • Touch tone and pulse dialing • Speaker with volume control • 8 LED status lights • 1-year warranty

PM1200G (1200/300 baud external modem). **$199.95**
PM2400G (2400/1200/300 baud external modem). **$379.95**
ProCom-B (Communication Software for IBM PC and Compatibles). . . . . **$ 34.95**



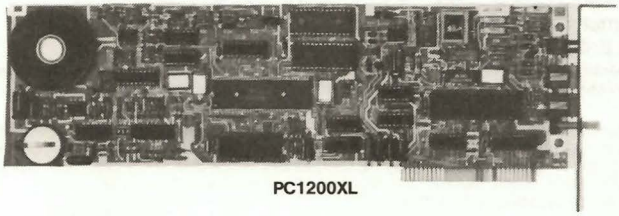
ZOOM

ZOOM 300 Baud Modem

For APPLE II, II+ and *IIe*

• Auto-dial/auto-answer • Hayes-compatible • Includes call progress monitor, speaker, Zoom Communications Software and manual • Made in the U.S.A. • 2-year warranty

ZM300 (300 baud modem). **$89.95**



PC1200XL

ZOOM 2400/1200/300 Baud Modems

For the IBM PC, XT, AT and Compatible Computers

STANDARD FEATURES of the ZOOM/MODEM **ST** Model include: • 100% Hayes-compatible plug-in modem for IBM PC, XT, AT and compatibles • Auto-dial/auto-answer, monitor speaker with volume control • Demon Dialing of any busy number, whether you're calling a person or a modem • Call progress tone detection of busy, ring, dialtone, MCI tone, etc. • Audio input so you can send sound to a remote caller by connecting a voice synthesizer, to dictate electronic mail, stock quotes, or other spoken information • Audio output port for digital or analog recording of phone conversations or for output to an external speaker • Supports four COM ports • Works reliably with 8, 10, 12 MHz AT compatibles (most internal modems don't) • Software that supports all these advanced hardware features • Made in the U.S.A. • 2-year warranty

The **XL** Model has all the **ST** STANDARD FEATURES above PLUS:
• 8K electronic mail buffer for background data messaging, with battery backup (upgradeable to 32K) • Real-time clock/calendar with program to load your computer's system clock (will not interfere with other clocks you may have) • Touchtone decoder to receive commands from any touchtone phone or dialer. • Auto-answer touchtone password security to foil prowling hackers

PC1200 ST (1200/300 baud, ST model). **$199.95**
PC1200 XL (1200/300 baud, XL model). **$229.95**
PC2400 ST (2400/1200/300 baud, ST model). **$369.95**
PC2400 XL (2400/1200/300 baud, XL model). **$389.95**

Commodore Compatible Computer Accessories

COMMODORE CHIPS

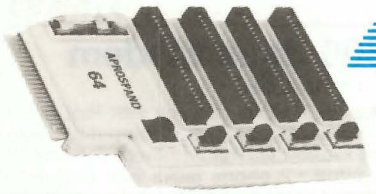
WE WELCOME SUGGESTIONS FOR ADDITIONAL COMMODORE CHIPS YOU WOULD LIKE US TO STOCK!

Part No.	Description	Price
SI-3052P	5V Pos. Volt. Reg. 2 Amp	$ 5.95
6502	MPU w/Internal Clock.	$ 2.25
6504A	CPU.	$ 1.95
6507	CPU.	$ 4.95
6508	MPU w/RAM & I/O.	$ 8.95
6510	CPU.	$ 9.95
6520	PIA.	$ 1.75
6522	VIA.	$ 2.95
6525	TPI.	$ 7.95
6526	CIA.	$14.95
6529	SPI.	$ 4.95
6532	128x8 RAM, I/O and Timer Array.	$ 6.49

Part No.	Description	Price
6545-1	CRTC.	$ 2.49
6551	ACIA.	$ 3.29
6560	VIC-I.	$10.95
6567	VIC-II.	$14.95
6569	VIC PAL.	$14.95
6572	VIC PAL-N.	$14.95
6581	SID.	$14.95
8360	Text Editing.	$10.95
8501	MPU.	$10.95
8502	MPU.	$ 7.95
8563	CRT Controller.	$15.95
8564	VIC.	$15.95

Part No.	Description	Price
8701	Clock Chip.	$ 9.95
*8721	PLA.	$14.95
8722	MMU.	$ 9.95
251104-04	Kernal ROM.	$10.95
325572-01	Logic Array.	$24.95
*82S100PLA	(906114-01) = U17 (C-64)	$13.95
901225-01	Char. ROM.	$11.95
901226-01	BASIC ROM.	$11.95
901227-03	Kernal ROM.	$11.95
901229-05	Upgrade ROM.	$15.95

*No spec. available, 8721 and 82S100
All others available — 50¢ each



APROTEK

Four-Slot Cartridge Expander for C-64 and C-128

NEW!

The Aprospand-64 gives your C-64 and C-128 full expandability. This expansion module plugs into the expansion port and gives you four switchable (singly or in any combination) expansion connectors, fuse protection, and a reset button!

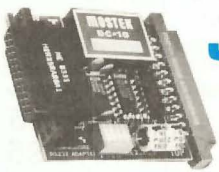
• Color: Tan • Size: 6⅜"L x 3¾"W x 1¼"H • Weight: 1 lb.

Aprospand-64. . . . . $29.95

JAMECO PROTO PC BOARD AND VECTOR BOARD FOR THE COMMODORE (See page 65)

JE413 4½" Edge Connector (.100") Board. **$7.95**

3795-1 Same as JE413 with 3-Hole Pads/Buses . . **$13.49**



Jameco ELECTRONICS

Now Compatible with C-128!

RS232 Adapter for VIC-20, C-64 and C-128

The JE232CM allows connection of standard serial RS232 printers, modems, etc. to your VIC-20, C-64 (excluding the SX-64 Portable), and C-128. A 4-pole switch allows the inversion of the four control lines. Complete installation and operation instructions included. Note: Operation with the C-128 in 64 mode only.

• Plugs into User Port • Provides Standard RS232 signal levels • Uses 6 signals (Transmit, Receive, Clear to Send, Request to Send, Data Terminal Ready, Data Set Ready)

JE232CM. $39.95

estes

External Power Supply for the Commodore 64

• Input: 117VAC @ 60Hz • Output: 5VDC @ 3 Amps, 10VAC @ 250mA • Short circuit protected and current limited • Transient spike suppression on two auxiliary 110VAC sockets • Switch on front serves as power switch for the computer and other peripherals • RFI/EMI filtered • Adjustable linear regulator • Has less than 50mV ripple rms at full load • 5 Amp primary fuse • 2-conductor with ground line • Color: brown • Weight: 5 lbs. • Size: 7½"D x 5½"W x 2½"H • ***1 Year Warranty!***

CPS-10. . . . . $39.95

Parallel Printer Interface for VIC-20, C-64 and C-128

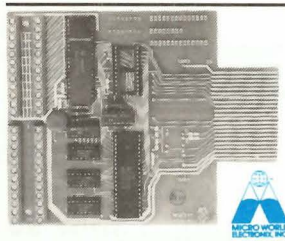
A special switch setting for the C-128 CP/M® MODE allows use with programs like DBASE® II and WORDSTAR®

A totally intelligent serial to parallel printer interface for the VIC-20, Commodore 64, C-128, Plus4, and CBM 16 computers. Provides complete Commodore 1525 printer emulation on most popular dot matrix printers. Additional features include:

• Standard 2K buffer • Full dot and column tabbing • Graphic repeat function • Normal and inverse alpha and numeric characters • Dot addressable graphics • Full cursor down/up modes • Complete self-test status report • Universal switch selectable for printer compatibility • Exclusive key match feature for program listings • Hardware switches: Reset, Line Feed, Mode, Device • CP/M mode • Size: 6¼"L x 4⅛"W x ¾"H
Note: The MW350 4K version is not expandable with the CUP8K.

MW-350. . . . . $54.95

CUP8K 8K Buffer Upgrade and documentation for MW-350. . . . $4.95



MICRO WORLD ELECTRONICS, INC.

General Purpose I/O Card for C-64 and C-128

The MW-611 is a general purpose input/output card that plugs into the expansion port of the C-64 and C-128. The card will digitize 16 analog inputs, and provide 16 high current discrete outputs. These sixteen discrete outputs are provided for general purpose switching such as driving lamps, relays, solenoids and small motors. They are programmable through Basic, individually or in groups.

• 16-channel analog multiplexer • 16 hi-current discrete outputs • EPROM socket for custom programs • A/D (0-5V Range) and D/A converters • 16 pin footprint for experimental circuits • Acquisition time: 100 micro-seconds per sample • The MW-611 comes complete with input/output card, 5¼" disk software program and indepth documentation (including instructions, schematics, typical hookups, listing of program, and more) • Size: 6½"L x 5¼"W x 7/16"H

MW-611. . . . . $199.95

APPLE® COMPATIBLE COMPUTER ACCESSORIES

Jameco ELECTRONICS
Mail Order Electronics - Worldwide

Numeric Auxiliary Keypad for the Apple *IIe* — VisiCalc Users!

The JE614 is a numeric/auxiliary keypad for the Apple *IIe*. It offers the flexibility of a 10-keypad and the convenience of 11 directly accessible functions. Screen manipulating functions make word processing a snap and cursor controls make the keypad ideal for VisiCalc™ users. The JE614 keypad is housed in a durable metal enclosure and is color-coordinated with your Apple *IIe* computer. Operation of the keypad can begin within minutes of unpacking. Special functions (available when used with an 80-column card - see below) include: Home, Clear, Clear to End of Screen, Scroll-Up, Scroll-Down, Tab, Delete, Left, Right, Up, Down. Each key has auto-repeat capability. Note: Does not include arithmetic functions. Size: 5⅞″L x 4³⁄₁₆″W x 1¼″-2½″ Slope

JE614. . . . . $49.95

5¼″ Full Height Disk Drive and Controller Card for Apple II, II+ and *IIe*

mitac

• Belt-driven • 143K formatted storage • Color matches Apple Computer • Works with Apple Controller or other Apple-compatible controllers (JE875) • Complete with connector — just plug into your disk controller card • 35 tracks • Size: 6″L x 3½″W x 8⁹⁄₁₆″D • Weight: 4¼ lbs.

ADD-514 (Disk Drive). **$129.95**
JE875 (Controller Card). . . . . **$ 49.95**

5¼″ Half-Height Disk Drive and Controller Card for Apple II, II+ and *IIe*

Maple Technology

• Direct drive • Four-month warranty • 143K formatted storage • 35 tracks • Super quiet • Works with Apple Controllers or other Apple-compatibles (JE875) • Complete with connector — just plug into your controller • Size: 5¾″W x 1⅝″H x 8″D • Weight: 4 lbs.

ADD-12 (Disk Drive). **$99.95**
JE875 (Controller Card). . . . **$49.95**

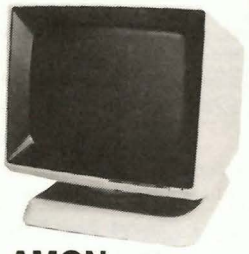
5¼″ Half-Height Disk Drive for Apple *IIc*

• Same specs as ADD-12 (above) except no controller is necessary

ADD-*IIc*. $109.95

12″ Monochrome Green Monitor for Apple II, II+, *IIe* and *IIc*

INTRA

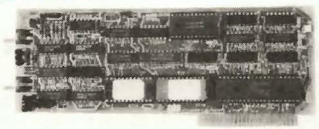


Also compatible with other computer systems.

FEATURES:
- Composite video output
- Band width: 20MHz
- Input impedance: 75 Ohm
- Resolution: 800 lines @ ctr.
- Power consumption: 30W
- Complete with tilt/swivel monitor stand
- Weight: 19 lbs.
- Size: 14.5″W x 16″D x 16.5″H

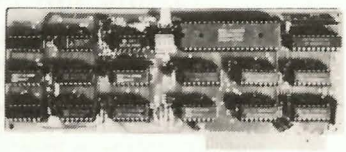
AMON. $99.95

Advanced Logic Systems — 80-Column Card for Apple II, II+ and *IIe*



The **Smarterm II Interface Card** for Apple II, II+ & *IIe*, provides your video monitor with an 80-column screen display, plus the 40-column Apple II display. Smarterm II understands the standard Applesoft, Integer BASIC, & Apple Pascal commands and programs. Smarterm II also adds the special punctuation characters, common on standard typewriters, not included on the Apple II and II+. You can use the commands and programs that work on a standard Apple, *PLUS* many new commands unique to Smarterm II, CP/M 2.2 (Z-Card) and CP/M 3.0. Manual included.

Smarterm II. $139.95



Z-80 CP/M Card for Apple II and II+

The **AZ80-1 Z-80 CP/M Card** is soft-card compatible. Used with CP/M related programs. Software not included. Compatible with CP/M version 2.20 or earlier.

AZ80-1. . . . . $39.95

Switching Power Supply for Apple II, II+ and *IIe*

• Can drive 4 floppy disk drives and up to 8 expansion cards • Short-circuit and overload protection • Fits inside the Apple computer • Fully regulated +5V @ 4A, +12V @ 1.0A, −5V @ .5A, −12V @ .5A • Apple-type plug-in power cord included • Size: 9⅞″L x 3½″W x 2¼″H • Wt.: 2 lbs.

KHP4007 (Data Incl.). . **$34.95**

Cooling Fan for Apple II, II+ and *IIe*

• Line surge suppression • Snaps on the side of Apple II, II+ and *IIe* enclosures • Eliminates overheating problems thereby boosting reliability and operation life of computer • Switch on front serves as power switch for fan and computer • Also includes 2 additional AC outlets • Size: 7″L x 2⅜″W x 4¼″H • Weight: 2 lbs.

APF-1. . . . . $29.95

12″ Monitor Base (For All Monitors)

• 360 degree swivel • 12.5 degree tilt • Mounting area: 11″W x 10″D

Base-12. . . . . $12.95

MICRO WORLD ELECTRONIX, INC

Parallel Printer Interface for Apple *IIc*

• The **MW-100 Parallel Printer Interface** gives the Apple *IIc* access to virtually any printer with a parallel Centronics type connector • Just plug in and print! • Uses Apple's power-up default settings • High speed data transfer • Standard text printing fully supported • One year warranty • Size: 6¼″L x 4⅛″W x ¾″H

MW-100. . . . . $49.95

TANDY® COMPATIBLE PRODUCTS

Jameco ELECTRONICS

E-X-P-A-N-D TRS-80 MEMORY

PURPLE COMPUTING

TRS-80 MODEL I, III

All kits come with complete documentation

TRS-16K3 200ns (Model III) (8 each 5290N-3 Dynamic RAMs). . . . **$5.95**
TRS-16K4 250ns (Model I) (8 each 5290N-4 Dynamic RAMs). **$5.49**

TRS-80 COLOR AND COLOR II

TRS-64K-2 (8 each 4164-200 Dynamic RAMS). **$7.95**

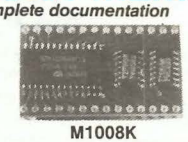
New Models only —

TRS-Co-Co Includes (2) 50464's (41464's) Dynamic RAMs. **$10.95**

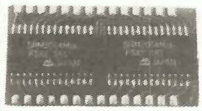
TRS-80 MODEL 4, 4P AND 4D

TRS-64K-2 Expands Model 4 from 16K to 64K or Model 4 (Gate Array Version), 4P and 4D from 64K to 128K (8 ea. 4164-200 Dyn. RAMs) . . **$7.95**

TRS-64K-2PAL Expands Model 4 (Non-Gate Array Version) from 64K to 128K (8 ea. 4164-200 Dynamic RAMs plus PAL Chip) **$14.95**



M1008K



M200R

TRS-80 Model 100 • NEC • Olivetti

TRS-80 Model 100 8K Expansion — M1008K. . . . . . **$19.95 ea. or 3/$54.95**

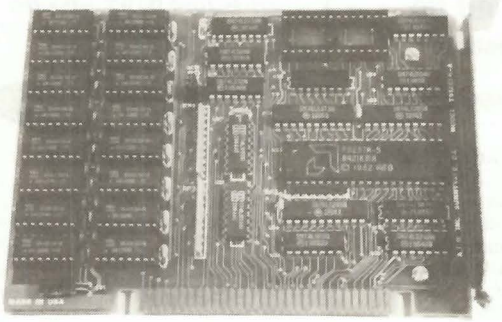
TRS-80 Model 102 8K Expansion — M1028K. **$9.95**

NEC Model PC8201A 8K Expansion — NEC8KR. . . . . . **$19.95 ea. or 3/$54.95**

Olivetti Model M10 8K Expansion — OM108K. . . . . . **$19.95 ea. or 3/$54.95**

TANDY 200

Tandy Model 200 24K Expansion — M200R. . . . . . **$59.95 ea. or 2/$109.95**



Made in the U.S.A.!

ZUCKERBOARD

Expansion Memory Half Card and Clock/Calendar for the Tandy 1000

2-Year Warranty!

The Zuckerboard Expansion Memory Board allows you to expand the memory on your Tandy 1000 (128K Version) as much as 640K. The Zuckerboard Expansion Memory Board uses 256K DRAM chips to increase your computer's memory by either 256K or 512K, bringing your total system memory up to either 384K or 640K. Also includes a DMA controller chip. The optional clock/calendar plugs directly onto the memory board.

TAN-EM256K Includes 256K RAM and Manual. . . . . **$ 99.95**
TAN-EM512K Includes 512K RAM and Manual. **$129.95**

Options for TAN-EM256K/512K

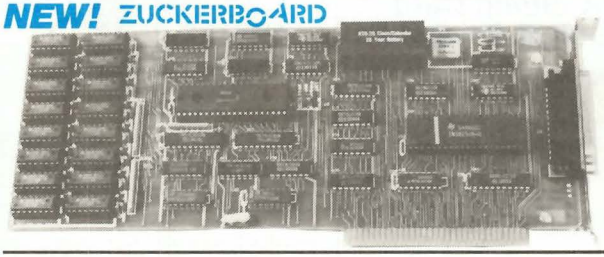
TAN-C Includes Plug-in Clock option chip (only). **$39.95**
TAN-D Includes RAM Disk Printer Spooler Software (only). **$39.95**

Expansion Memory Secondary Card for Tandy 1000

This board is designed for use with the Tandy 1000 that already has the DMA function built in or is equipped with an external DMA card.

EMTAN-384K Includes 384K RAM and Manual. **$109.95**

NEW! ZUCKERBOARD



Multifunction Board with Clock Calendar for the Tandy 1000

The Zuckerboard Multifunction Board allows you to expand the memory on your Tandy 1000 (128K Version) to as much as 640K. The Zuckerboard Multifunction Board uses 256K DRAM chips to increase your computer's memory by either 256K or 512K, bringing your total system memory up to either 384K or 640K. The Multifunction Board comes complete with an RS232 port, clock/calendar, RAM Disk Printer Spooler and an on-board DMA controller chip. The Zuckerboard Multifunction Board is made in the U.S.A. and comes with a standard 2 year warranty.

MTAN-256K Includes 256K RAM and Manual. . . . **$179.95**
MTAN-512K Includes 512K RAM and Manual. . . . **$209.95**

NEW!

PURPLE COMPUTING

3.5" Micro Floppy Disk Drive for Tandy 100 and 200, NEC8201A, IBM PC, XT, AT and Compatible Computers

Now your IBM PC or compatible can read and write the same disks as your portable!

At 28 ounces and 1/3 the size of a Model 100, this disk drive is totally portable. The FD103 connects directly to the RS232 port on your computer, no controller is necessary and the cable is included. Four "AA" batteries (not included) will power the drive for 2+ hours of continuous reading/writing at over 2,000 characters/second (19,200 baud), or use the 6 volt AC adapter which is also included. Fast random file access to 102,400 bytes means no more waiting for cassettes. The best part is the software by Traveling Software — **TS-DOS** for Model 100/200 and NEC PC8201A, and **LAPDOS** for the IBM. • Color: Black • Size: 5⅛"W x 6¼"D x 2⅛"H • Weight: 3 lbs.

Part No.	Description	Price
FD-103	**Includes 3.5"** Disk Drive, Cable, AC Adapter, Blank Diskette and Documentation.	**$179.95**

SOFTWARE for the FD-103 Disk Drive (Software needed for operation)

TS1	**Tandy 100 TSDOS Disk Operating System Software.**	**$44.95**
TS2	**Tandy 200 TSDOS Disk Operating System Software.**	**$44.95**
TSN	**NEC PC8201A Disk Operating System Software.**	**$44.95**
LAPDOS	**IBM PC, XT, AT and Compatible LAPDOS Disk Operating System Software.**	**$74.95**

IBM® COMPATIBLE PRODUCTS

COMPUTER MEMORY EXPANSION KITS
For IBM PC, XT & Compatible Computers

This Kit is simple to install – just insert the nine 64K RAM chips in the provided sockets and set the two groups of switches. Complete conversion documentation included.

IBM64K (Nine 200ns 64K RAMs). **$9.95**

For IBM AT Computer

Each Kit comes complete with nine 128K Dynamic RAMs and complete conversion documentation included.

IBM128K (Nine 200ns 128K RAMs). **$39.95**

DYNAMIC RAMS
Populate Your Own Boards

Part No.	Function	Nanoseconds	Price
4164-120	65,536x1	120ns.	$1.75
4164-150	65,536x1	150ns.	$1.15
4164-200	65,536x1	200ns.	$ .95
4128-200	131,072x1	200ns Piggyback.	$4.49
41256-120	262,144x1	120ns.	$3.95
41256-150	262,144x1	150ns.	$2.95

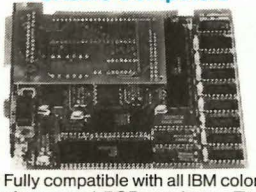
Expansion Memory Half-Card
for IBM PC, XT, Portable, Tandy 1200 and Compatible Computers

The memory expansion board allows the memory on your IBM PC, XT, Portable, Tandy 1200 and compatible computers to be expanded to its full capacity of 640K. It will accept either 64K memory chips (4164) or 256K memory chips (41256). There are eight possible memory configurations, ranging from a minimum of 64K to a maximum of 576K. The memory expansion board fits in ***any*** expansion slot, including the difficult-to-use short slot (except slot 8 in the IBM-XT). Optional Clock/Calendar: TAN-C @ $39.95 (see opposite page).

EM-100 Expansion Memory Half Card (without RAM). **$59.95**

EM-D RAM Disk and Printer Spooler Software. **$39.95**

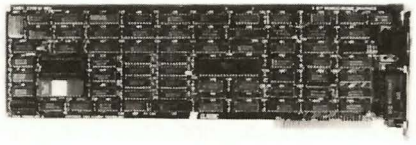
—ZUCKERBOARD
Integrated Color Board with Printer Port
for IBM PC, XT, AT and Portable Computers



• Fully compatible with all IBM color software and RGB monitors • Fits the difficult-to-use half-card short slot or any long slot • Requires 1/3 the power of conventional color boards • Quality backed by 2-year warranty • Includes 9-pin composite video adapter • Compatible with the TTX-1410 14" RGB Color Monitor (see page 86)

IBM-ICB. $99.95

Classic
MONOCHROME GRAPHICS ADAPTER
For the IBM PC, XT and AT



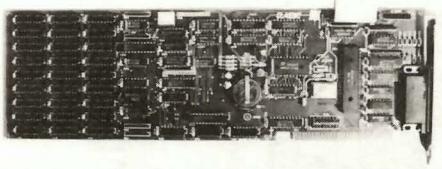
• Superior Graphics • Full Hercules Compatibility • Printer Connector • Flicker-Free Picture

The *CLASSIC* Monochrome Graphics Adapter combines excellent text and readability with exciting graphics on your monochrome display. • Sharp, hi-resolution graphics 720x348 • Complete emulation of the Hercules™ graphics standard with popular programs • Full HBASIC compatibility, no software modifications needed • Compatible with the IBM-MON 12" TTL Monochrome Monitor (see page 87) • 3-year warranty

Reduced from $199.95 – SAVE $50.00!

IBM-MGA. $149.95

Classic
MULTIFUNCTION ADAPTER
For IBM PC, XT

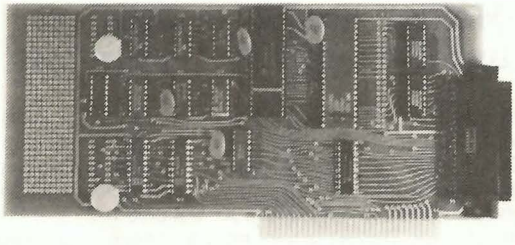


• Accessory Connectors • Printer Spooler • Clock/Calendar • RAM Disk

• Add up to 384K (Zero-K included) of memory to your PC, XT or compatible computer (18-4164's and 9-41256's) • Parallel printer connector • Serial connector • Game connector • Clock/calendar • No more waiting to use your computer while your printer is printing – the *CLASSIC* Printer Spooler controls your printer so you can work with your computer • 3 year warranty

Reduced from $179.95 – SAVE $30.00!

IBM-MULTI. $149.95



Micro R&D General Purpose Input/Output Card
For IBM PC, XT and Compatible Computers

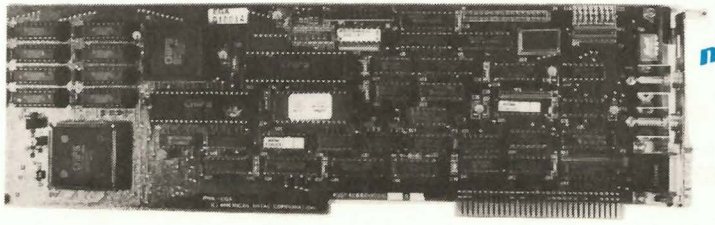
• 16-channel analog inputs • 14 high-current discrete outputs • One analog output • Prototyping area for experimental circuits

The MW-200 is a general purpose input/output card that plugs into the IBM-PC, XT or compatible models. The card will digitize 16 analog inputs and provide 14 high current outputs along with one analog output. An additional 10 programmable inputs/outputs are provided that are TTL level compatible. The interface connector is a DC-37S.

SPECIFICATIONS: • Error: 1 LSB • Conversion time: 100ms • Input range: .0V to 5V • MUX resistance on: 3K ohm • MUX delta resistance: 75 ohm • Off leakage +: 200nA • Off leakage −: −200nA • Comparator input current: −2mA • Voltage at any pin: −.3V to 5.2V

Reduced from $239.95 – SAVE $40.00!

MW-200 (Complete with Card, Software and Manual). **$199.95**



ENHANCED Graphics Adapter
for the IBM PC, XT, AT and Compatible Computers

mitac

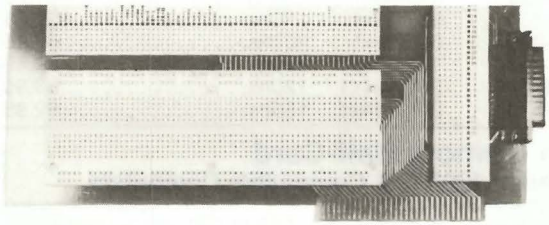
• Increases the color range for 640 x 350 graphics to 16 vibrant colors • Hardware and software compatible with IBM Enhanced Graphics Adapters • Fully compatible with all major video standards, including the Color Graphics Adapter, Monochrome Display Adapter, and Hercules Graphics Card • Provides additional parallel printer port • 256K RAM • Switch between enhanced color, color or monochrome displays without removing the PC's cover • Soft, flicker-free horizontal and vertical scrolling • Light pen interface • Compatible with the TTX-1410 14" RGB Color Monitor (see page 86)

IBM-EGA (Complete with 256K RAM, Printer Port, Light Pen Interface and Manual. **$259.95**

IBM® COMPATIBLE PRODUCTS

NEW

Solderless Plug-In Breadboard for the IBM PC, XT and Compatible Computers



Design Your Own Interfaces!

Design your own interfaces. Plugs directly into IBM PC card slot. A solderless bus strip allows breadboarding of circuits directly to all signals, control and data lines. The breadboarding area consists of 2 solderless breadboarding sockets which are permanently attached to the unit. Each UBS-100 can accommodate up to eight 14-pin DIP ICs with 4 tie points per pin plus 8 power rails with 25 tie points each. Total number of points: 1,680. All IBM signals are connected to a solderless interface socket. An external DB-25 connector is provided for interfacing. All signals on DB-25 connector are also connected to the solderless interface socket. The signals are labelled on both the IBM BUS and DB-25 interface sockets. • Size: 10⅜"L x 4⅛"W x ½"H • Weight: 9 oz.

PB-88. . . . . $74.95

Card Extenders!

See page 64 for VECTOR's complete line of IBM PC, XT, and AT EXPANSION BOARDS

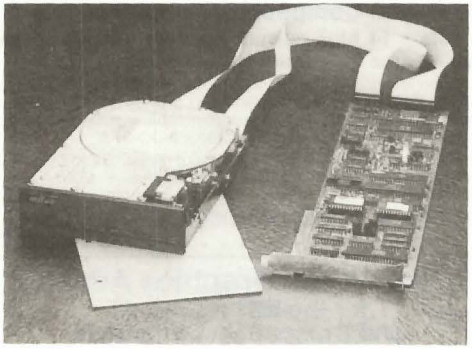
3-Hole Solder Pad & Bus Cards!

TTX™ 14" RGB Color Monitor for IBM PC, XT and Compatible Computers

• Picture Tube: 0.43mm Stripe • Input Signal: (Video) RGB TTL Level and Intensity Signal; Sync: Separate TTL Level (positive or negative) • Scanning Frequency: (Horizontal) 14.5KHz to 17.8K • Video Bandwidth: 18MHz • Display Area: 13.1" diagonal • Resolution: 640 x 200 • Connector: DB 9-pin (included) • Controls: (Front) Brightness, Contrast, Vertical Hold; (Rear) H-Phase, Horizontal Hold, V-Lin., V-Size • Power Consumption: 70 Watts • Size: 14.6"W x 15.5"D x 13.6"H • Weight: 27 lbs. • TTX-1410 is compatible with the IBM-ICB and the IBM-EGA Cards (see page 85)

TTX-1410. . . . . $299.95

mitac Inc.



20MB Half-Height Hard Disk Drive for IBM PC, XT and Compatible Computers

The IBM-20MBK is used to add hard disk storage to the IBM PC or its compatibles and convert them to configurations that are 100% software compatible with the IBM XT. The IBM-20MBK uses a hard disk controller card that is fully compatible with that of the IBM XT. This means that all existing and future software that runs on the IBM XT will also run on a PC converted with this hard disk kit. This kit is very easy to install . . . it takes only about 10 minutes. Your converted PC will not only function like the IBM XT but will also be more versatile. One example is that you can boot DOS directly from your hard disk, instead of your floppy if you choose to do so.

• Auto-boot from hard disk • Hard disk controller plugs into any slot in your IBM PC/XT • 20MB of formatted storage • Fast access time • Size: 5⅝"W x 8¼"D x 1½"H • Weight: 5 lbs.

IBM-20MBK includes a 20MB Half-Height ST225 Seagate Drive, controller card, cable, bezel, mounting brackets and instruction manual.

IBM-20MBK. $449.95

IBM® COMPATIBLE COMPUTER ACCESSORIES

NOW YOU CAN BUILD AN IBM PC/XT COMPATIBLE!

FREE! Quicksoft PC Write Word-Processing Software Included!

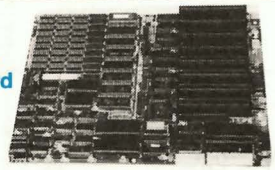
Part No.	Description	Price
IBM-64K (2 sets)	64K RAM CHIPS (18)	$ 19.90
KB-83	83-KEY KEYBOARD	$ 29.95
IBM-FCC	FLOPPY CONTROLLER CARD	$ 39.95
IBM-Case	FLIP-TOP CASE	$ 39.95
IBM-MCC	MONOCHROME CARD	$ 69.95
IBM-PS	POWER SUPPLY	$ 69.95
FD55B	TEAC 5¼" DISK DRIVE	$109.95
IBM-MON	12" MONOCHROME MONITOR	$ 99.95
IBM-MB	MOTHERBOARD (with 0-K RAM – incl. BIOS-ROM)	$129.95

SPECIAL **Regular List $609.50**

IBM-Special (Includes 9 items above) . . . $549.95

IBM PC XT Compatible Motherboard

Includes BIOS ROM!



• **Comes with Zero-K of Memory (expandable to 640K – need 128K RAM for operation) • 8 expansion card slots • 8087 co-processor capability • Handles up to four drives**

The whole board comes complete (including BIOS ROM) with system board, specifications and schematics. Ideal for engineer or OEM applications! Size: 12"L x 8½"W x 15/16"H • Weight 2 lbs.

IBM-MB. $129.95

IBM PC XT Compatible Case

Expand Your PC!

• Metal housing and chassis with coating & anti-static treatment • Plastic face plate • Flip-up lid for easy access • Back plate set for expansion including 8 card slots and power supply mount • Color: grey • All necessary hardware for expansion included

Size: 19½"W x 16½"D x 5¾"H • Weight: 17 lbs.

IBM-Case. $39.95

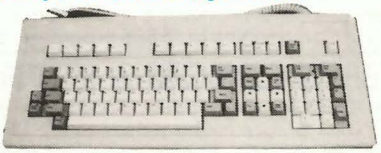
5¼" Disk Drives

JU-455	Panasonic 5¼" Half-Ht.	$109.95
FD55B	Teac 5¼" Half-Ht.	$109.95
TM100-2	Tandon 5¼" Full-Ht.	$119.95

IBM PC XT Compatible Direct Replacement Keyboards

• Identical layout as original IBM PC keyboard • Illuminated "Caps Lock" and "Num Lock" keys • 84 keys, mechanical switches (uses Intel 8048) • Complete with schematics and instructions • Color: off-white • Size: 17¼"L x 7¼"W x 1¼"H

IBM-KB. $69.95



• Enhanced PC/XT keyboard (equivalent to Keytronics™ 5151) • Separate cursor and numeric keyboard • Typewriter style layout: easier to learn! • LED indicators • Ready-to-go, complete with schematic & instructions • Color: off-white • Size: 20"L x 8½"W x 1½"H

IBM-ENH. $89.95

IBM PC/XT Equivalent 130W Power Supply

+5VDC @ 15A
–5VDC @ 0.5A
+12VDC @ 4.2A
–12VDC @ 0.5A

• Input: 100V-130V @ 47Hz • Output: +5VDC @ 15A, –5VDC @ 0.5A, +12VDC @ 4.2A, –12VDC @ 0.5A • Plug compatible connectors • Fits into IBM PC • Built-in fan • Weight: 6 lbs. • Size: 9½"L x 5½"W x 4⅝"H • Spec. included

IBM-PS. $69.95

MONITOR

NEW!

TTX 12" Green Monochrome Monitor for IBM PC, XT & Compatibles

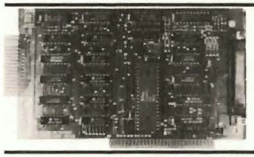
• TTL input • Band width: 25MHz • Scanning Hor. Frequency: 18.432KHz • Resolution: 1000 lines • Power consumption: 26 watts • Weight: 17 lbs • Size: 15"W x 13⅜"D x 10⅞"H • Compatible with IBM-MCC (right) and IBM-MGA (see page 85)

IBM-MON. $99.95

Better Products MONOCHROME DISPLAY CARD for the IBM PC, XT and Compatible Computers

● ***Compatible with IBM-MON*** (left) • Text mode: 80 x 25 • Character generator supports 256 dot patterns • Complete with manual

IBM-MCC. $69.95



Better Products FLOPPY DISK DRIVE CONTROLLER CARD for IBM PC, XT and Compatible Computers

• Run up to four disk drives • Includes cable for two internal drives • Standard DC37S for external drives • Complete with manual

IBM-FCC. $39.95

CABLES, BEZELS, SPEAKERS AND STANDOFFS

IBM-BEZEL	Half-Height Bezel (Fills empty space when mounting half-height drives)	$4.95
IBM-KEC	Keyboard Extension Cable for IBM PC & XT Computers – 5' length	$5.95
IBM-SPEAKER *NEW!*	Speaker Assembly Kit (Includes speaker, wire and 4-pin Molex connector)	$9.95
MMS-2210	Serial Modem/Printer Cable – 10' length – DB25P (Male) to DB25P (Male)	$6.95
MFS-2210	Serial Modem/Printer Cable – 10' length – DB25P (Male) to DB25S (Female)	$7.49
IBM-8PC	Parallel Printer Cable – 8' length – DB25P (Male) to CEN36M Centronics (Male)	$9.95
MCABLE	Monitor Adapter Power Cable – 6' length – Enables user to plug any monitor into your IBM power supply	$9.95
ST-OFF	PC Board Standoff – ⅝" spacing distance – Provides ample clearance from the chassis for assembled boards	12/$1.00

JE664/665/670 EPROM & EEPROM PROGRAMMER ACCESSORIES

JM32B
(Pictured)

JE664 AND JE665 EPROM JUMPER MODULES

The **JE664/665's Jumper Module (Personality Module)** is a plug-in Module that pre-sets the JE664/665 for programming pulses to the EPROM and configures the EPROM socket connections for that particular EPROM.

– JM SERIES JUMPER MODULES –

JE664/665 EPROM JUMPER MODULE NO.	EPROM/MANUFACTURER	PROGRAMMING VOLTAGE	PRICE
JM08A	2708 AMD, Motorola, National, Intel, TI	25V	$14.95
JM16A	2716, TMS2516 (TI), Intel, Motorola, National, NEC, AMD, Hitachi, Mostek	25V	$14.95
JM16B	TMS2716 (TI)	25V	$14.95
JM32A	TMS2532 Motorola, TI, Hitachi, OKI	25V	$14.95
JM32B	2732 AMD, Fujitsu, NEC, Hitachi, Intel, Mitsubishi, National	25V	$14.95
JM32C	2732A Fujitsu, Intel	21V	$14.95
JM64A	MCM68764, MCM68L764, MCM68766 Motorola	25V	$14.95
JM64B	2764 Intel, Fairchild, OKI	21V	$14.95
JM64C	TMS2564 TI	25V	$14.95
JM64E	2764A Intel, AMD	12.5V	$14.95

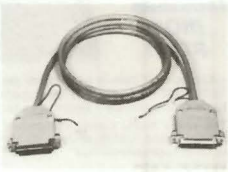
JE665CP

JE665 COMMUNICATION PROGRAM

for the IBM PC, XT and Compatibles

- **Fast compiled BASIC program**
- **Easy to use, menu driven**
- **Print hard-copies of EPROM data**
- **View data in Hex and ASCII**

The **JE665 Communication Program** was written for quick interfacing between the JE665 EPROM Programmer and the IBM-PC computer and compatibles. This menu-driven program allows the user to Load and Save EPROM data to and from the computer or floppy disk. Data entered by the computer can be viewed in Hex and ASCII formats. Printed hard-copies are also displayed in both formats. This program is ideal for keeping archives of master EPROMs on disk. The program is compatible for all EPROMs listed with the JE664/665 (see above). **Computer requirements:** IBM PC, XT (or equivalent) with at least 128K RAM and one serial port. Optional: One parallel printer port.



JE665CBL

Part No.	Description	Price
JE665CP	**JE665 Communication Program** (5¼" Disk and User's Instructions)	$49.95
JE665CBL	**Interface Cable for IBM PC, XT and Compatibles to JE665 Programmer** (5-foot Shielded Cable Assembly)	$29.95

JMG 16A
(Pictured)

JE670 EPROM & EEPROM JUMPER MODULES

The **JE670 Jumper Module (Personality Module)** is a plug-in Module that pre-sets the JE670 for programming pulses to the EPROM/EEPROM and configures the EPROM/EEPROM socket connections for that particular EPROM or EEPROM.

– JMG SERIES JUMPER MODULES –

JE670 EPROM JUMPER MODULE NO.	EPROM/MANUFACTURER	PROGRAMMING VOLTAGE	PRICE
JM G8A	2758 (Single Voltage) Intel, National	25V	$19.95
JM G16A	2716 Intel, AMD, Fujitsu, Motorola, National, NEC, Toshiba, TMS2516 TI	25V	$19.95
JM G32A	2732A Intel, NEC, TI, AMD, Fujitsu (MBM2732A and MBM27C32)	21V	$19.95
JM G32B	2732 Intel, NEC, National, AMD, Fujitsu	25V	$19.95
JM G32C	MCM2532 and MCM25L32 Motorola, National, TI	25V	$19.95
JM G64A	2764 Intel, NEC, TI, Toshiba, AMD, OKI, Fujitsu and Hitachi (2764 and 27C64)	21V	$19.95
JM G64B	TMS2564 TI	25V	$19.95
JM G64C	MCM68764, MCM68L764, MCM68766 Motorola	25V	$19.95
JM G64D	AM2764A AMD, 2764A Intel	12.5V	$19.95
JM G128A	27128 Intel, AMD, Fujitsu, NEC, Toshiba, TI, Mitsubishi (M5L27128K and M5M27C128K)	21V	$19.95
JM G128B	27128ADC AMD	12.5V	$19.95
JM G256A	27256 Intel, Atmel, 27C256 National	12.5V	$19.95
JM G256B	TMM27256D Toshiba, Fujitsu (27256 and 27C256)	21V	$24.95
JM G512A	27512 Intel, AMD	12.5V	$19.95
JM G513A	27513 Intel	12.5V	$19.95

JE670 EEPROM JUMPER MODULE NO.	EEPROM/MANUFACTURER	PROGRAMMING VOLTAGE	PRICE
JM GE13A	5213, 52B13, SEEQ	5V	$19.95
JM GE16A	2816A Exel, Intel, Rockwell, Xicor	5V	$19.95
JM GE16B	2816 Intel	21V	$29.95
JM GE32A	MCM2832 Motorola	21V	$19.95
JM GE64A	X2864A, X2864B, X28C64 Xicor	5V	$19.95
JM GE256A	X28256, X28C256 Xicor	5V	$19.95

JAMECO'S EPROM AND EEPROM PROGRAMMERS

JE664 AND JE665 EPROM PROGRAMMERS

Mail Order Electronics · Worldwide
Jameco ELECTRONICS

PROGRAMS 8K TO 64K EPROMS

JE664 EPROM PROGRAMMER

Completely self-contained — requires no additional systems for operation.

- **Emulates 24 and 28 pin PROMs or EPROMs**
- **Programs and validates EPROMs**
- **Checks for properly erased EPROMs**
- **Compares and copies EPROMs**
- **Loads data into internal RAMs by keyboard or EPROM**

JE664 EPROM PROGRAMMER

OPERATION: The JE664 EPROM Programmer emulates and programs various 8-bit word EPROMs from 8K to 64K bit memory capacity. The JE664's RAMs may be accessed for emulation purposes from the panel's test socket to an external circuit. "Data" and "Address" displayed in convenient binary and hex. format. • Input: 115VAC, 60Hz, 10W • Size: 15⅝"L x 8¾"D x 3½"H • Weight: 5¾ lbs.

JE664 EPROM Programmer (Assembled & Tested) (Includes one JM16A Jumper Module). **$795.00**

JE664 EPROM PROGRAMMER WITH RS232 INTERFACE

OPERATION: The JE664 EPROM Programmer with an RS232 interface implements computer access to the JE664's RAM. This allows the computer to manipulate, store and transfer EPROM data to and from the JE664. A sample program listing is supplied in MBASIC for CP/M computers. Documentation is provided to adapt the software to other computers with an RS232 port. 9600 Baud, 8-bit word, odd parity and 2 stop bits.

JE665 JE664 Programmer w/RS232 Interface (Assembled & Tested) (Includes one JM16A Jumper Module) . . . **$995.00**

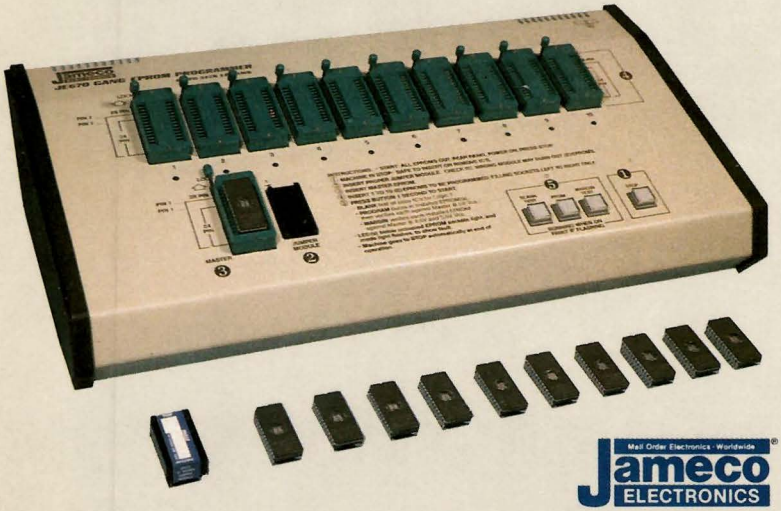
JE665 ACCESSORIES

JE665CP **JE665 Communication Program** (5¼" Disk and User's Instructions). (*See photos and description opposite page*) . **$49.95**

JE665CBL **JE665 Interface Cable** (5-foot Shielded Cable Assembly). . . . . (*See photos and description opposite page*) . **$29.95**

See opposite page for the complete line of JE664 and JE665 Jumper Modules.

JE670 GANG EPROM & EEPROM PROGRAMMER



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COPIES 8K TO 512K EPROMS AND EEPROMS

The **JE670** is a stand-alone programmer that gang-programs most EPROMs and EEPROMs (up to 512K) from your Master IC. Operation is simple, foolproof and fast.

- **Program capacity of ten EPROMs or EEPROMs at one time. Status indicator for each socket.**
- **Fully automatic Blank-testing, Programming and Margin-testing EPROMs and EEPROMs**
- **Fully automatic verification against Master, both after Programming and during Margin-testing at two VCC's**
- **Uses "Intelligent" algorithms to minimize programming times**
- **All device sockets are Zero Insertion Pressure Textool® Sockets**
- **Programs ten 2716's in 10 seconds or ten 2764's in 30 seconds**

OPERATION: The JE670 Gang Programmer is fully operated with just 4 pushbuttons. Operation is simplified by employing Jumper Modules ("G" Series) for the different type devices (see opposite page). The JE670 is ideal for production programming and testing of IC's. • Input: 115VAC, 60Hz, 15W • Size: 15⅝" L x 8¾"D x 3½"H • Weight: 6.8 lbs.

JE670 GANG EPROM & EEPROM PROGRAMMER (Assembled & Tested) (Includes one JMG16A Jumper Module) **$695.00**

See opposite page for the complete line of JE670 "G" Series Jumper Modules

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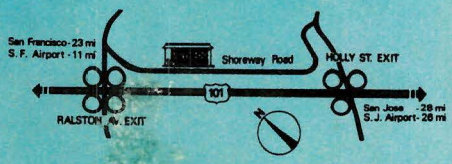

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